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American Cinematographer

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Rolling With the Punches for *Rocky IV*

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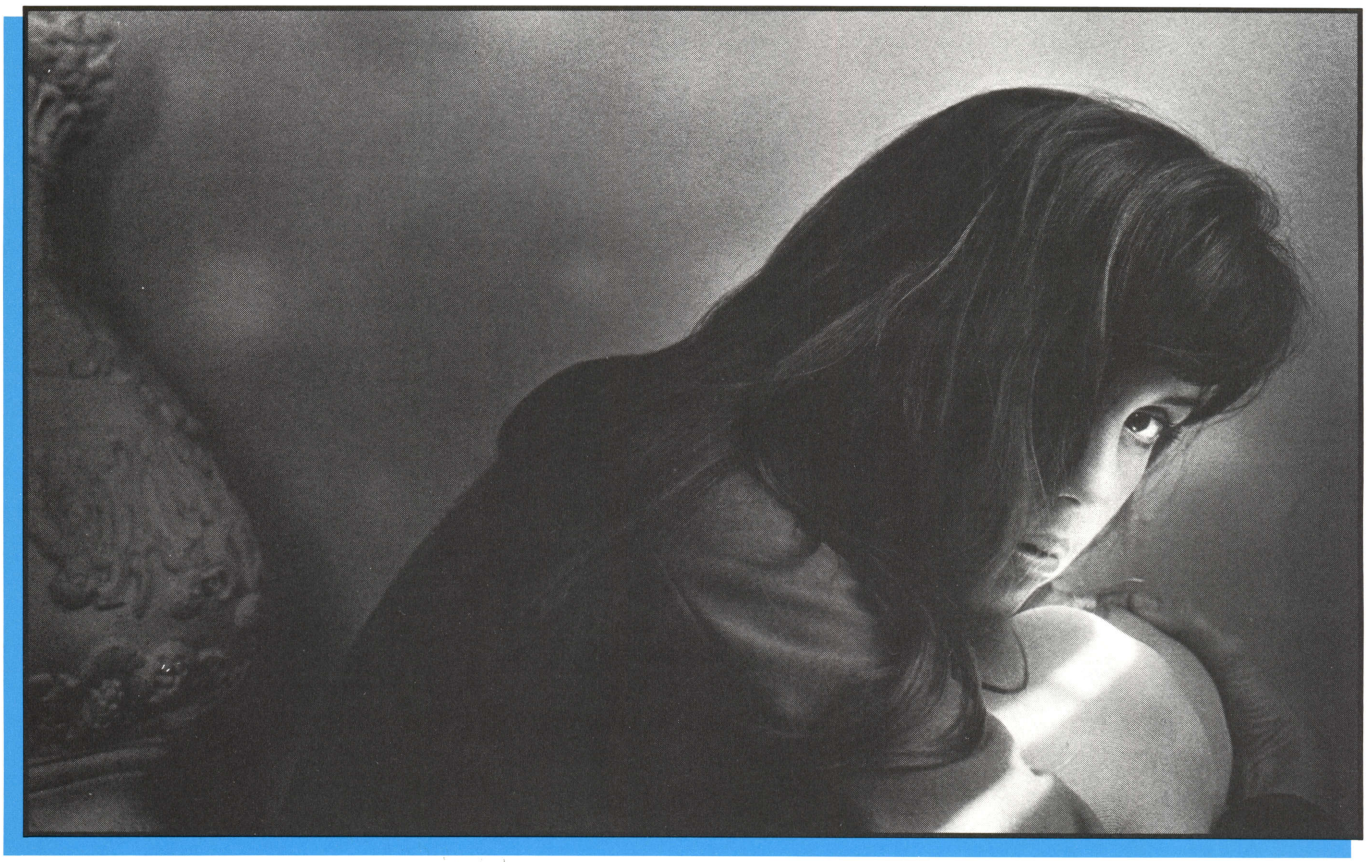

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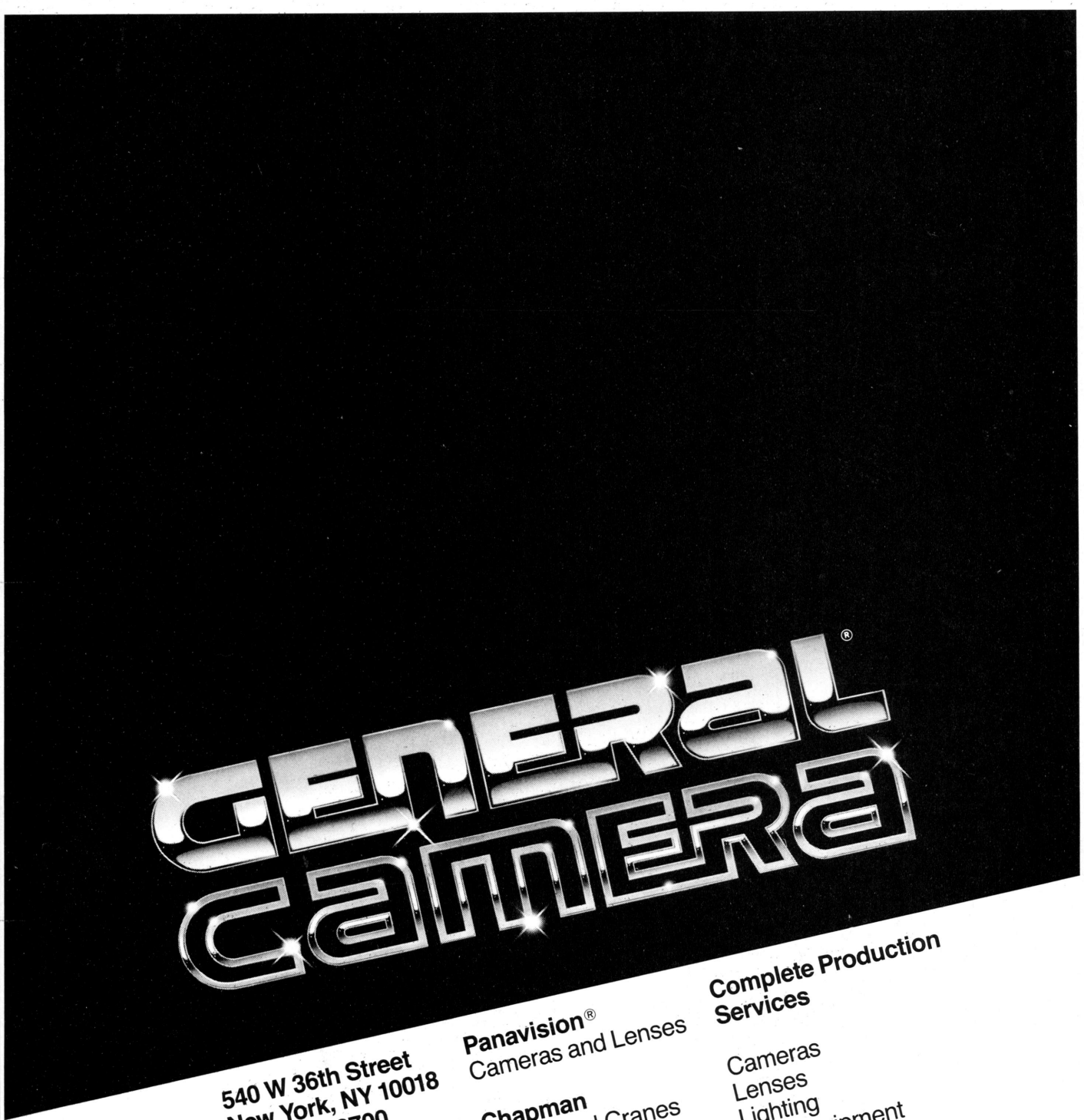

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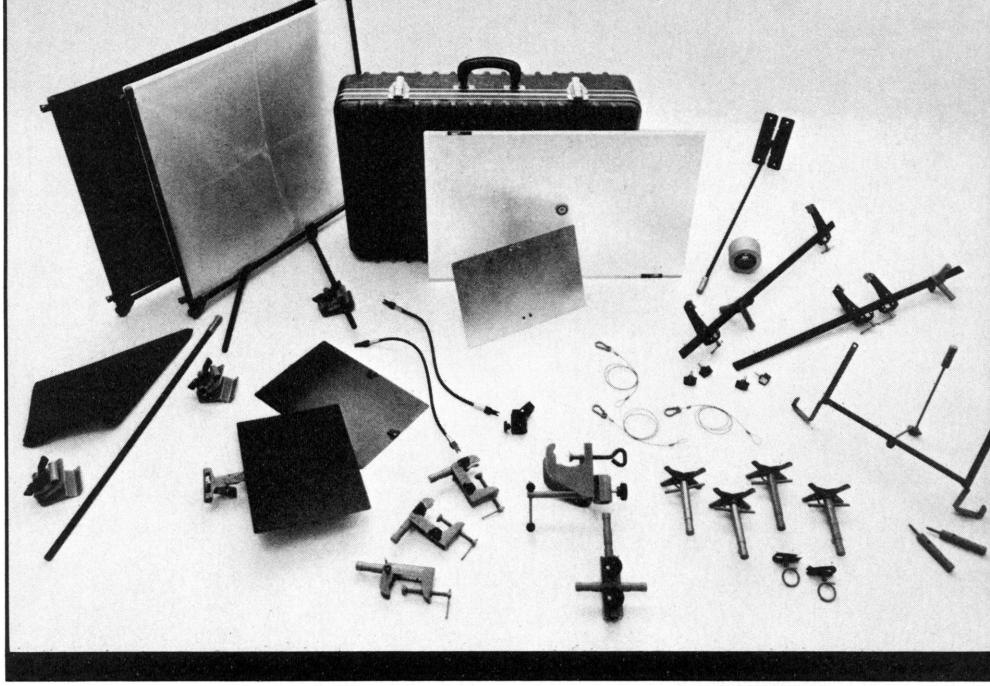

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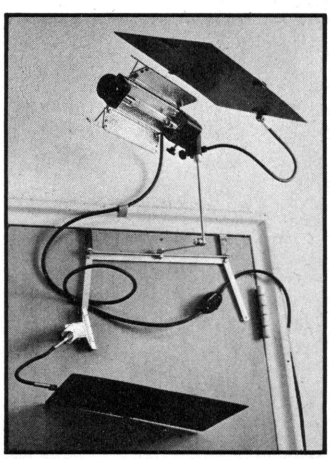
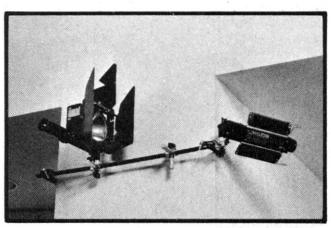
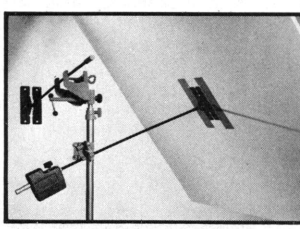
Flags shadow light secured by Tota-mount.



Space Clamps can be interconnected for greater spans.



Maxa-mount, Grip and Lobo position reflector-panels, props and products.



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The International Journal of Film and Video Production Techniques

February 1986 Vol. 67 No. 2

American Cinematographer

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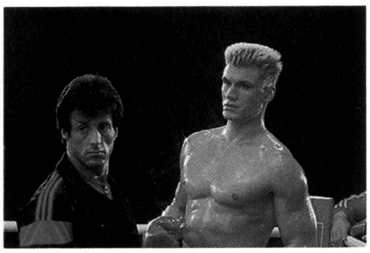

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On Our Cover:
Celie (Whoopee Goldberg and Mr. ____ (Danny Glover) listen to the blue in scene from *The Color Purple.* Photo by John Shannon

Dave Knox

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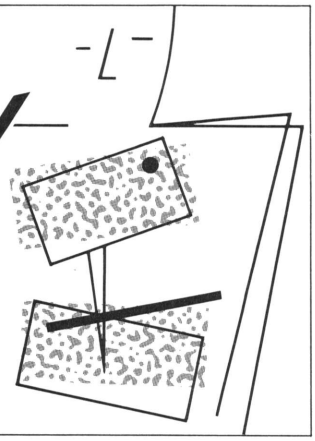

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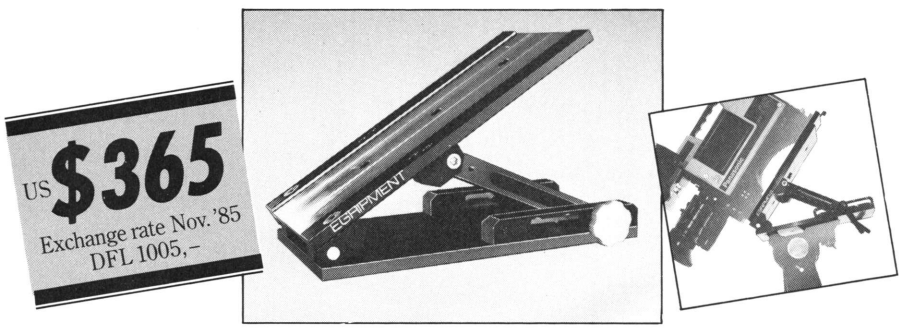

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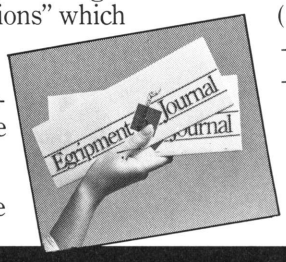

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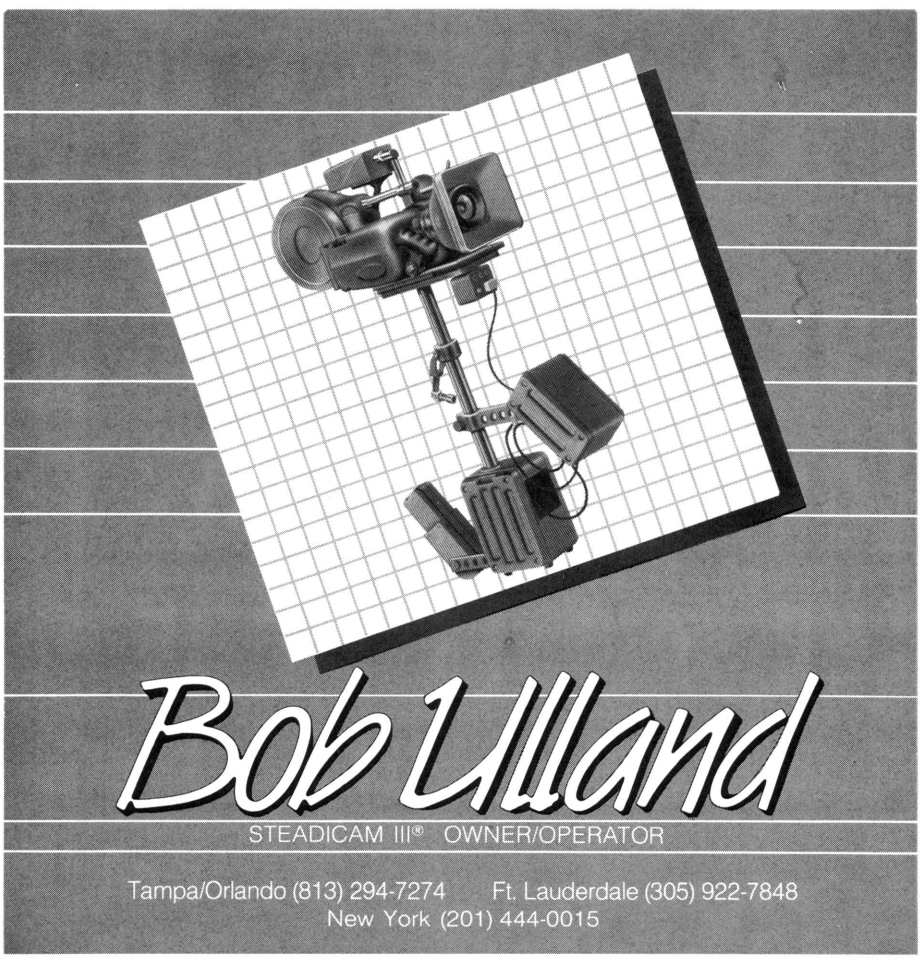

American Society of Cinematographers

The American Society of Cinematographers is not a labor union or a guild, but is an educational, cultural and professional organization. Membership is by invitation to those who are actively engaged as Directors of Photography and have demonstrated outstanding ability. Not all cinematographers can place the initials ASC *after their names.* ASC *membership has become one of the highest honors that can be bestowed upon a professional cinematographer, a mark of prestige and distinction.*

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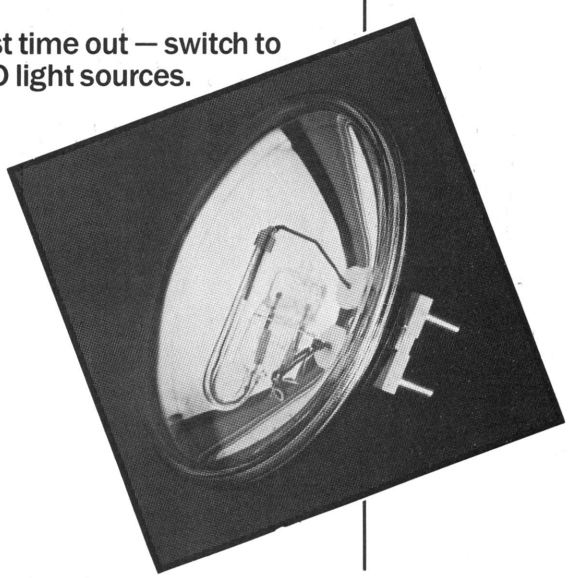

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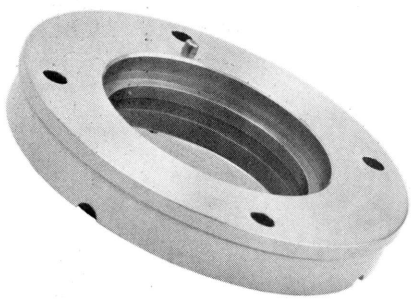
Two identical new lenses. Right out of the box, one didn't project as well as the other – so we adjusted its floating elements. Now that one is better than new.

Our new test-projector reticle lets us *measure* the resolution of our lenses and express it as a *number.* The new reticle's target lets us see almost twice the number of line-pairs per millimeter.



The new reticle: Reads up to 200 line-pairs per millimeter. Cost Century Precision $10,000 to develop. Worth every penny.

With our new reticle, comparing resolution on those two brand-new 20mm lenses wasn't a subjective judgement. It was two *numbers.* One lens scored higher than the other.

On the new reticle, the progressively finer line-pair groups are *labelled* – the numbers are up there on the projection screen. After we repositioned the floating elements on the softer lens, its resolution number was the same as the other.

The reticle target we were using before *didn't* display the numbers; and its maximum was 125 line-pairs per millimeter (LPM). Since it was designed for the Air Force in 1951, lenses and filmstocks have gotten a lot better. The new target reads up to 200 LPM.

Big projection room image

Those fine details are easy to see in our special projection room. At seven feet, for example, the new reticle's target image projected by a 25mm lens is 6 ft 7 ins. from side to side.

We routinely check *every* new lens at *every* distance marked on the barrel. Some lenses arrive from the factory with inaccurate focus distance markings.

At Clairmont, we re-engrave those immediately, using the projector.

"Some lenses arrive from the factory with inaccurate focus markings..."

New Zeiss lenses are always accurately marked, in our experience. But even *those* superb lenses can change with time, wear and tear.

Their helical focussing threads wear in very slightly. After baking in the sun, their lubrication can partially dry out. Zoom cam-followers become worn.

Service record card

Like everything else, lenses need maintenance. We keep a service record card on every one of our lenses. From now on, the LPM resolution number will be on the card, with all the *other* data on that lens.

The new reticle: part of the Clairmont projector system of lens testing, maintenance and repair

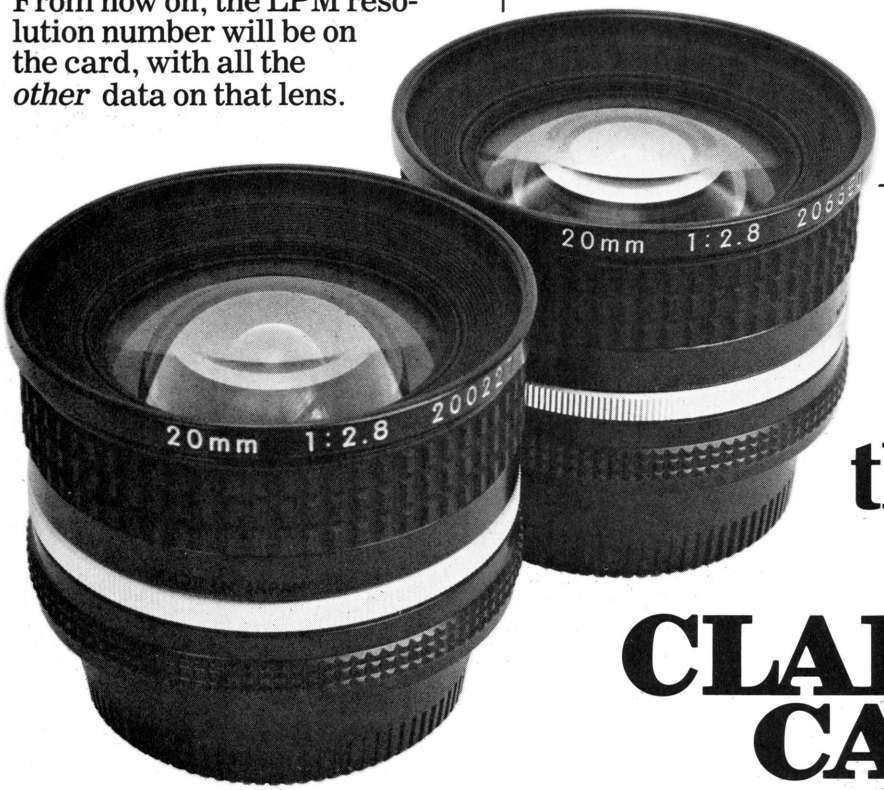
Not all projectors are created equal

The test-projector we use is not an adapted slide projector—it was designed for the specific purpose of testing lens performance.

That's important. For example: the flange-to-reticle target distance is very precisely controlled *and immovable.* We're not testing just the lens—we're also testing the lens as it will perform on the camera.

We do the standard tests on our collimator, of course. But modern super-speeds and floating-element designs need much more than that. They may check out fine at infinity. But they may lose resolution as you focus closer; or the image may go soft at one side of the screen.

Our test-projector's condenser optics are designed to illuminate the iris pupil evenly and randomly edge to edge—so we really *are* testing the lens wide open. If there's anything wrong, we can see it unmistakably. After we've fixed the problem, the test-projector lets us clearly see that we've got it right.



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Letters

Wrong ID

Thank you for publishing "The Filming of *In the Name of the People*", in the October issue. However, I was very upset to see a photo of the late cinematographer John Chapman, filming an interview with a Salvadoran guerrilla, misidentified as Frank Christopher. The successful completion of our production in the mountains of El Salvador and the subsequent Academy Award Nomination cannot be separated from the courageous and creative cinematography of John Chapman.

—Frank Christopher
Oakland, Calif.

Sorry, Cheops

Pictured in the September 1985 issue (Page 64) is a pyramid at Giza, Egypt. This pyramid is incorrectly labeled Cheops. It is, in fact, that of Chephren, the son of Cheops. The pyramid of Cheops is next to Chephren's, and it is much larger. Great picture though!

—Douglas Kent
Garden Grove, CA

All Quiet Comment

Here's a sidelight on George Mitchell's excellent article on *All Quiet on the Western Front* (Sept., 1985):

In the spring of 1969, influenced by MGM's successful 70mm blowup of *Gone With the Wind,* Universal decided to do the same with *All Quiet,* having it hand-colored in Japan and rerecording it in stereo. The latter proved to be the project's downfall, for in those pre-Dolby, pre-digital days, all their attempts succeeded in doing was to emphasize the imperfections in the original recording as well as the surface noises and abrasions on the optical track negative from which it was taken. The failure of Columbia's blowup of *The Jolson Story,* as well as the realization that *All Quiet* was not as well known to the 1969 public as *GWTW* led to its ultimate abandonment.

—Rick Mitchell
Universal City, CA

Omission

Regarding your recent article, "Chronos, Imax Eyes History", I would like to point out that the role of the Reuben H. Fleet Space Theater and Science Center was not mentioned. The information regarding the San Diego Hall of Science is correct in the article. However, this organization operates as the Reuben H. Fleet Space Theater and Science Center.

—Ron Fricke
Culver City, Calif.

Questions on Light

In the new book you have advertised from which you printed an excerpt, "The Light on Her Face", does the author go into the subject of lighting, fixtures used, techniques, etc.?

Of all the articles in the American Cinematographer which I have read since the late twenties, it is the lighting techniques that are the most interesting to me. Every year there comes on the scene a new crop of movie makers and enthusiasts, so I hope you continue to cover this aspect of the business. It would be of special interest if on all sets, and particularly close-ups, the still photographer would use a 24 or 28mm lens, get back a ways and make a shot or two showing the placement of lamps and the kinds used. These would be just as helpful if shot in black and white.

For those who have never been to Los Angeles or in any other movie studio, this would give a better idea of set lightings.

—Robert H. Nance
Wellesley Hills, MA

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Oxberry Into Computer Graphics

Oxberry Corporation announced the production of a hi-speed computer camera for converting computer graphic images into precise, high resolution cinematography. The Oxberry MX 3000 interfaces two established products; the Oxberry Master Animation Camera and Matrix 3000 Analog Film Recorder.

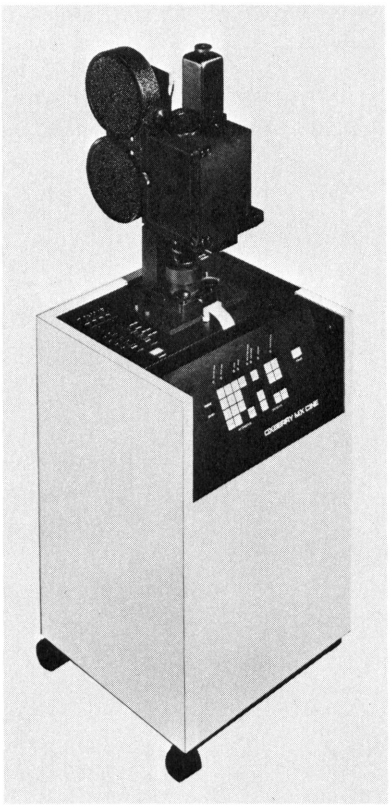
Sophisticated animation programs are rendering complex 3-dimensional objects in a fraction of the time required of traditional cel painting techniques. These technical advances are resulting in millions of computer images that must be efficiently converted to cinefilm for group presentations. The MX 3000 is Oxberry's design for the fast and precise down-loading of all analog computer graphic systems.

The MX 3000 is comprised of 3 parts: The Oxberry Master Animation Camera normally supplied with a 35mm cine shuttle (also available for all conventional formats from 8mm to Vista-Vision and slide film). The Oxberry film transport shuttles employ a fixed-pin principle of limiting the transfer movement to the film only. Bulk load magazines for up to 400' film loads are standard.

Matrix 3000 is a reliable graphic film recorder which produces high resolution color images at analog speeds. Typical recording time is better than one minute per image. Image quality is state-of-the-art at resolution of up to 1280 x 1024.

The MX 3000 control console will direct the camera in conjunction with or independent of the graphic computer. It can load and unload the camera, move the film forward or rearward to frame, multiple expose frames and automatically notch by marking the edge of the film.

Due to the precision shuttle and direct camera control many established special effects available to the



optical industry can be combined with the computer graphic image. Effects such as traveling mattes, super-imposition, and multiple exposures using cine live action are now possible. Some can be used in-camera and all as post production operations on Oxberry optical printers and animation stands.

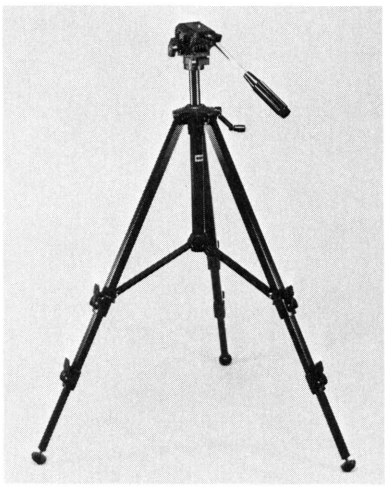
For more information contact: Oxberry, 180 Broad Street, Carlstadt, New Jersey 07072. Telephone (201) 935-3000

New Fluid Head Tripod

Ambico has introduced a new fluid-head tripod designed to provide the smooth panning action of fluid-head videocamera control at a price affordable to users entering the videocam field. The Val-U™ Line Fluid Head Tripod (Model J-5500) is the newest addition to Ambico's video accessories offering quality and essential features to budget-minded consumers.

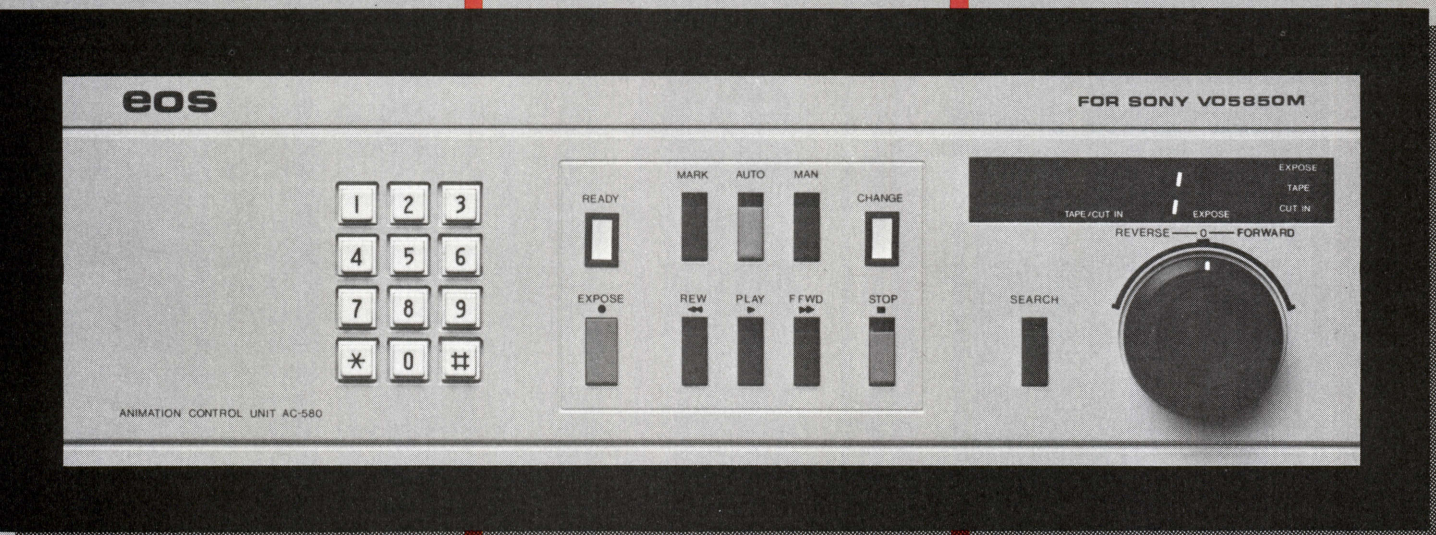
The unit also affords greater stability than conventional camera tripods. Because they are heavier than film cameras and balanced differently, videocameras tend to be topheavy when mounted on non-video tripods. This is risky for costly videocameras and lenses.

Fluid-head tripods are preferred by video professionals for their smooth panning action. The Model J-5500's panhead housing holds a viscous fluid which permits smooth, jitter-free movement throughout a 36-degree pan or 180-degree tilt.



The Model J-5500 features square legs constructed in a closed cross-section for a greater strength-to-weight ratio than open "U" design. Quick-release lever-style leg locks permit rapid height adjustment and the center column is of a sturdy friction lock design. Retractable spike leg tips help stabilize the tripod and videocamera on uneven terrain. The unit has a long pan

EOS/FAX
Video Animation Controller



FRAME BY FRAME RECORDING

This revolutionary step-saving controller opens up a new world for animators and video artists. The EOS/FAX video animation controller is a full function microprocessor designed especially for FRAME-BY-FRAME Video Recording.

Whether your application is recording one frame at a time from a graphics computer, animation stand, producing commercials, animatics, claymation, pixelation, for television, the EOS/FAX controller will do the job. You can use it for pencil tests, color checks, and time-lapse photography also.

Available in two models; the AC 580 controls the Sony V05850 recorder and the AC580J controls the JVC machines; CR8250 and PR8800.

The EOS AC 580 Animation Control Unit will operate a slightly modified SONY or JVC U-Matic recorder.

When using the EOS/FAX animation controller for animation recording, it is suggested that KCA or KCS tape is used.

The operation of the controller relies on the insert editing function of the VCR and, as such, it is necessary to have CTL (Black Burst) pulses prerecorded on the tape.

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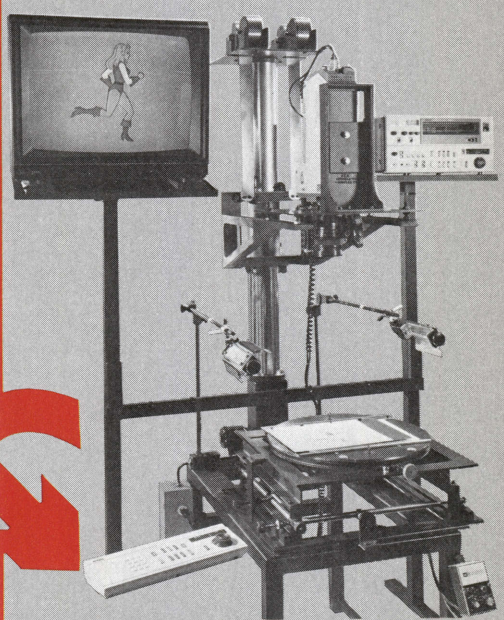

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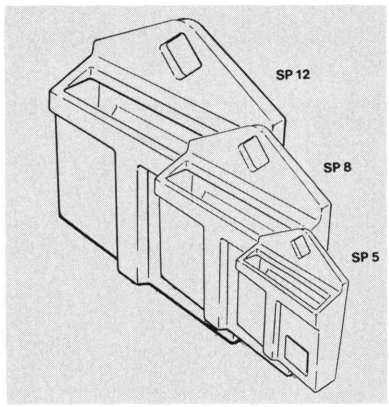
For further information: Ambico, Inc., 50 Maple St., Norwood, NJ 07648.



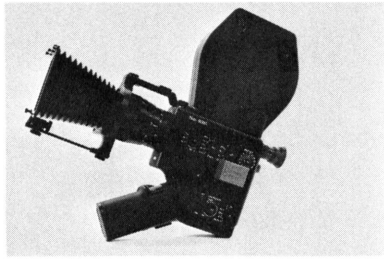
Scrimpak Protects

If you have accidentally laid an object on a wire mesh scrim or gel frame and had it damaged you know the value of Scrimpak.

The Scrimpak, which provides over 2½ inches of storage space, quickly attaches to the light stand and allows the photographer easy access to the scrims.

Molded from cross-link polyethlene, the Scrimpak is currently available in three sizes to accommodate (5–7.25", 8.5–10", 12–13.5") scrims.

For additional information contact, Nalpak Video Sales, Inc., 1937 C Friendship Drive, El Cajon, CA 92020. (619) 258-1200.



Crystal Camera Control

The Super8 Sound Crystal Camera Control will match the speed of the Nizo 6080 to a quartz oscillator to produce a precise 24 frames per second running speed, allowing cableless sync sound filmmaking with any sound recorder using the crystal sync system (Nagra, Stellavox, Super8 Sound, etc.).

At the heart of crystal sync are independent quartz oscillators tuned to produce a pure and unvarying signal. This extremely accurate signal is the sync reference for both the camera motor control and the recorder. Because of the accuracy of crystal oscillators, there is no need for any sync connection between the camera and recorder.

For filmmakers shooting Super 8, crystal sync literally cuts the umbilical cord tying the camera person to the soundperson – making it possible to shoot Super 8 using the same filming and recording techniques previously only possible in the larger film formats. Since any camera governed by a crystal motor control will be precisely in sync with any other, it is possible to cover an event with multiple cameras, and even with multiple formats.

The Nizo 6080 Crystal Camera Control is 1"x1½"x1" and weighs 1½ ounces. It attaches directly onto the camera which serves as its power source. A light-emitting diode indicates proper sync operation. A modification to the camera is necessary for it to accept the crystal control.

For further information, contact Super8 Sound of Cambridge, MA. 02140. (617) 876-5876.

Baby Boom

The Barber "baby" Boom was designed and developed to create unique camera angles, fluid movement, versatile rapid positioning and multi-dimensional combination camera moves.

With conventional camera cranes the camera and the operator ride up into the air on the end of the boom arm. The camera operator has no immediate control over height, swing or speed of movement. He must rely on two or three grips to position him in the right place at the right time, at the right speed.

The Barber "baby" Boom requires only the camera operator for its operation and control. The camera mounts at one end of the boom arm, while the camera operator stands at the other end operating the controls. While looking through a video monitor he can track the action . . . fast, slow, or what-

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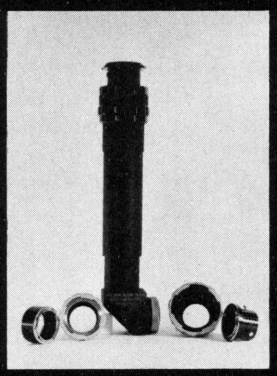
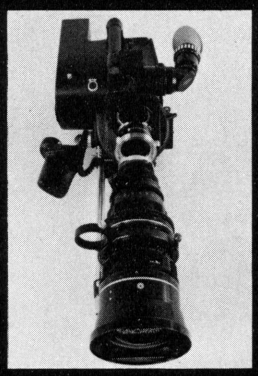


V35 PERISCOPE WITH ADAPTERS



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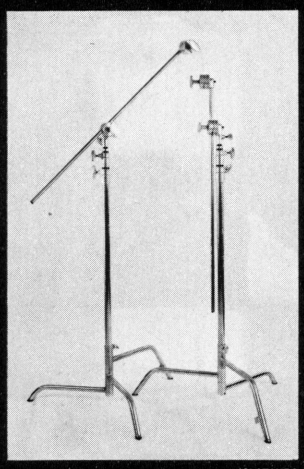

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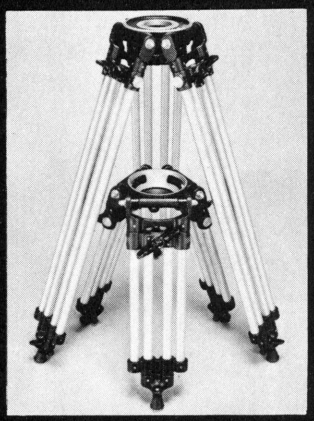

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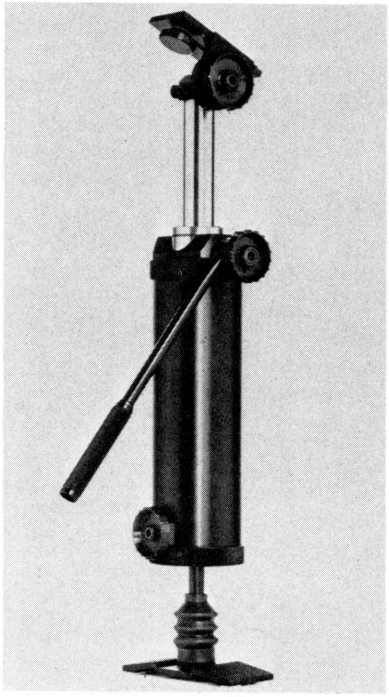
ever speed is needed for the shot. With a feather light touch, the boom swings from 6 inches off the ground to 11 feet in the air and 14 feet horizontally (a dolly move without the dolly).

The camera tilt is 160° up and down and the pan is 360°. The operator can servo zoom and focus without ever taking his hands off the controls, his eyes off the action or his feet off the ground. It's all made possible by the Barber "baby" Boom's center of gravity gimbal head and counter balanced parallelogram design which allows a single camera operator to vary camera height, angle, pan, tilt, boom, zoom and focus simultaneously in one smooth, continuous motion.

Set-up time required is approximately 10 minutes. Maintenance is minimal as there are no motors or pumps. Space requirements are three square feet on a standard tripod, allowing the boom to operate effectively in small tight spaces.

For further information: Videotelecom, 12229 Montague St., Arleta, CA 91331.



Shock Control

Available from Optex is Portamount, a camera mount which is a new concept in camera vibration and shock control. Portamount isolates the camera by a system of springs, air and

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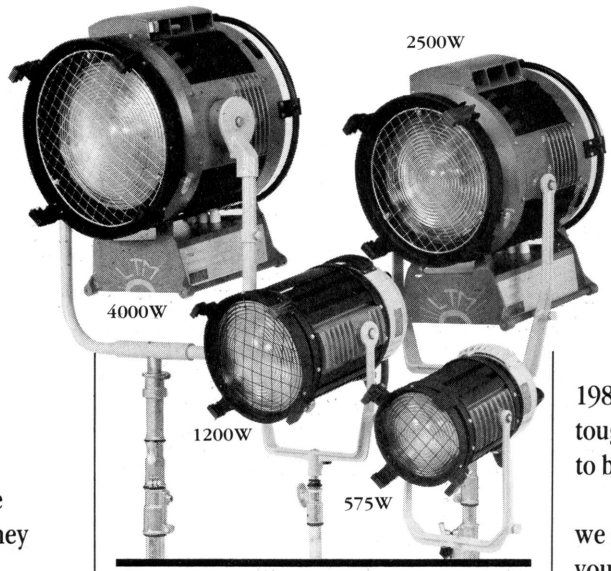

You've never read an understatement quite like the above headline, because LTM's new Mark III HMI lights are in fact so improved the competition should grimace as they read this ad.

Simply put, LTM's 1986 MARK III HMI lights are dramatically more compact than before; in fact, relocating the electronics on the back of the new 575W and the 1200W reduces their overall height.

For interior lighting situations LTM's NEW 575W and 1200W now accept smaller stands and (5/8'') mounting equipment making them easier to move and mount; and since they take up less space all you'll get in the picture is the lighting—***not the lights!***

That's Great you say, but, what about the larger exterior HMI's...**how are they improved?**

Glad you asked—the Mark III 4000W and 2500W have also gone to the gym, resulting in overall size reduction while maintaining existing photometrics.

The MARK III ballasts have also been reduced in size. They work great in either vertical or horizontal positions and their new retractable handles make them more conveniently transportable.

LTM's ''NEW & IMPROVED'' 1986 HMI lights are now built even tougher than before, and they continue to be the industry's most reliable.

As if all this weren't enough, we made the final improvement where you'll appreciate it the most—**$.**

So next time you think about what's really **New and Improved,** think about LTM's 1986 Mark III HMI lights.

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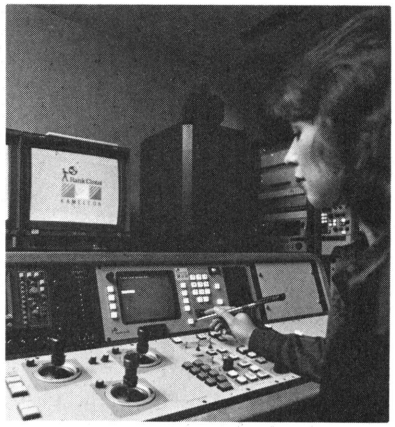
extremely low friction bearings, which in combination allow the mass of the camera to neutralize shock.

Portamount features a base plate with four inset rubber pads which provide an anti-skid grip. Within the base plate is a friction ball allowing a 30 degree tilt from the vertical, plus a 360 degree pan. Portamount weighs only 7 lbs, 2 oz.

For more information: Optical & Textile Ltd., 22–26 Victoria Road, New Barmet, Herts EN4 9PE.



New Telecine System

Rank Cintel, has announced the availability of an important new product: Kameleon, the new-generation, software-based grading system for use with Rank Cintel Mk 111-series telecines.

Kameleon employs advanced technology to increase the creative possibilities of programmed telecine operation while saving the operator's time and the client's money.

A major innovation is the incorporation of a light-pen, which provides an extra dimension for interaction between operator and system. Although Rank Cintel software designers have only begun to develop the potential for light-pen operation, they have already introduced a number of important new system functions.

Files (now as many as 99 per floppy disk) can be labeled using the light-pen in conjunction with a QWERTY keyboard displayed on the screen; by moving the light-pen along a simple linear scale, the operator can easily 'plot' even complex characteristics into an X, Y or zoom dynamic event – for exam-

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Early in 1985 David Watkin tested the new AGFA XT 320 negative film. Consequently Sidney Pollack's major production "OUT OF AFRICA" starring Robert Redford and Meryl Streep was extensively photographed on this negative film. David Watkin stated that "AGFA XT 320 is the best high speed negative available and offers the Director of Photography an extra octave in exposure range".

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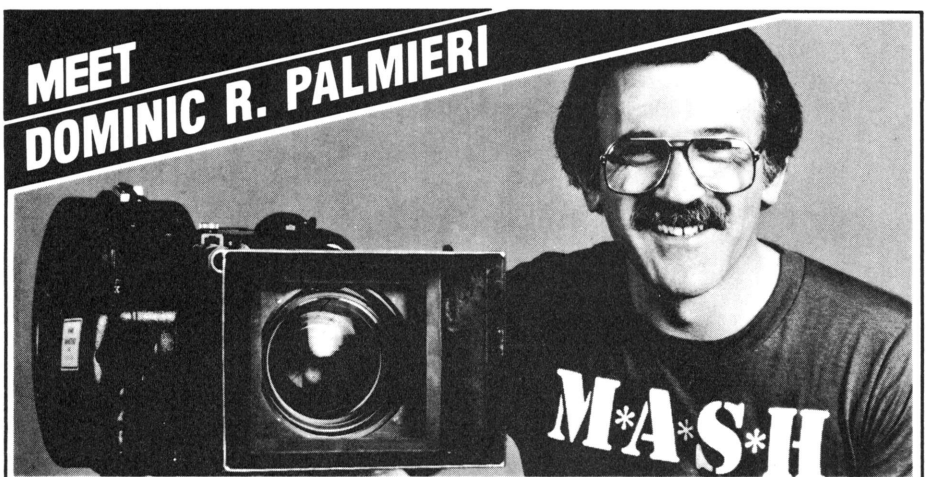

ANOTHER BROOKS GRAD WHO MADE IT TO THE TOP.

As Director of Photography for M.A.S.H., one of history's most highly-regarded TV shows, Dominic Palmieri has paved the way for a new generation of creative cinematographers. Where did Dominic learn his craft? Brooks Institute in Santa Barbara, California.

At Brooks, we provide the type of comprehensive education that's designed to bring the best out of our students. You'll learn *all* aspects of film making, including:

- ☐ Stage & location lighting
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If you're considering a career in film making, first consider how important your education can be to your career. That's why Dominic Palmieri chose Brooks. And maybe that's why he's where he is today.

BROOKS INSTITUTE

For information write or call: Department AC,
Brooks Institute, 801 Alston Rd., Santa Barbara, CA 93108 (805) 969-2291.

ple, to smooth-out electronically in post-production a jumpy camera pan.

In addition to its light-pen-controlled functions, Kameleon can count in feet and frames (especially important for animation work), has automatic topping and tailing (a single keystroke activates external cues to give IBA/ITCA bars, clock and black) and a replace mode. This feature is useful when changing a scene which has already been programmed. Unlike the existing trim function, it does not assume neutral control settings when activated but instead makes the picture output reflect the actual control positions, so that operators have the full range at their disposal.

For further information contact Rank Cintel Ltd., Watton Roade Ware Herts SG12 OAE, England. (0920) 3939.

Digi-Spot Meter

The Sekonic L-488 Digi-Spot meter is now available.

The L-488 features a choice of either 1° spot or 20° narrow reflected light measurement angles. Advanced electronic circuitry and a sensitive silicon photo cell assure rapid and precise readings with assured consistency. The meter operates to within 1/10th-stop accuracy in its continuous light mode from EV 1 to EV 20, while maintaining equal precision from f/5.6 to f/90 with flash (ISO 100). External and viewfinder readouts provide continuous monitoring capability of light levels.

A memory keyboard permits entry of ISO settings from 3 to 8,000 in ⅓rd-stop increments and EV settings from −4 to EV 24.9 or apertures from

f/1 to f/90 in 1/10th-stop increments. Shutter-speed readouts are provided from 30 minutes to 1/8000 seconds in continuous light and from 1 second to 1/500 second with flash. An easy-to-read LCD panel displays ISO and EV or f-stop entered, shutter speed measured, battery check, and over/under range warnings.

For further information, contact Sekonic R.T.S., 100 Broad Hollow Plaza, Route 110, Farmingdale, New York 11735. (516) 694-8812.

Mark III HMI Lights

LTM Corporation of America has unveiled four new lights as part of its 1986 MARK III line of HMI lighting. The new lights have been separated into two categories by applications: New Daylight-Interior lighting includes the dramatically smaller LUXARC 575w and 1200w and the new Exterior line includes the more compact LUXARC 2500 and 4K.

In addition to the considerably smaller size and lighter weight lights the MARK III line also includes a new LUXARC 12,000 ballast featuring A.V.S. (Automatic Voltage Selection). The new ballast automatically determines the correct (AC) voltage of either 120v, 208v, or 220v.

The ballasts for the new LUXARC 2500 and 4000 have also been reduced in size and now feature innovative new retractable hand-truck type handles making them more conveniently transportable. Both ballasts work in either vertical or horizonal positions.

The new LUXARC 575 is the world's smallest 575w light ever available for motion picture and television lighting. The 575's lighter weight and more compact size make it ideal for either stand mounting or for hanging from acoustical ceiling with scissor clips or other grip equipment.

For further information contact LTM Corporation of America offices in Hollywood, New York, Miami and Paris, France. △

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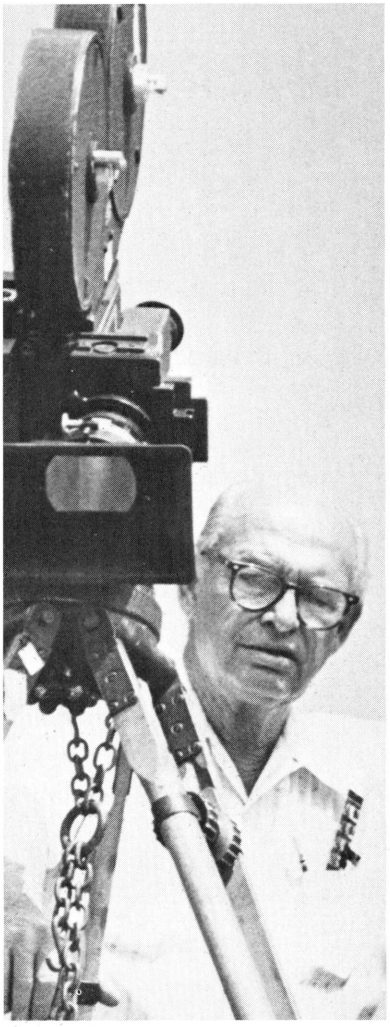

This man:

- ▶Landed a flying saucer in the heart of Washington, D.C.
- ▶Made Paul Newman and Robert Redford leap 80 feet into a rocky creek
- ▶Destroyed the world's tallest building.
- ▶Sent Raquel Welch on an odyssey through a man's bloodstream.
- ▶Fed James Mason to a giant lizard
- ▶Sliced his boss's son to ribbons with laser beams.
- ▶Turned a luxury liner upside down
- ▶Put Rex Harrison aboard a giant moth on its way to the moon

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The Bookshelf

by George L. George

Drawing on the vast library of Congress collection of historic documents on the media, **Wonderful Inventions** assembles in a substantial volume, edited by Iris Newsom, a remarkable array of original articles, photographs and sketches that depict the beginnings of film, radio, and television (*Library of Congress, Washington, $40*).

Rudy Behlmer's **Inside Warner Bros. 1935–51** is an extensive montage of memos, letters and cables that reveal the inner workings of a major Hollywood studio. These documents, originating with top corporate and creative WB personnel, discuss production snags, script problems, bruised egos, salary disputes, censorship fights—all part of normal studio routine (*Viking, NYC, $19.95*).

Well documented and skillfully written, George Perry's **The Great British Picture Show** is an informative history of Great Britain's contribution to cinema. It is at best a mixed record, with periods of brilliant achievements and rising expectations succumbing to economic hardships, government ineptness and American domination of the film market (*Little Brown, NYC, $19.95*).

James B. Twitchell's **Dreadful Pleasures** uses a psychological approach to analyze our fascination with and need for stories—and films—that send shivers down our spines. Focusing on *Dracula, Frankenstein,* and *Dr. Jekyll and Mr. Hyde,* Twitchell traces their historic origins and contemporary versions in this lively and entertaining book (*Oxford U. Press, NYC, $18.95*).

In his biographical tribute to Marlene Dietrich, **Falling In Love Again,** Donald Spoto combines superbly selected photographs with an insightful appraisal of the star, and the changes she induced in popular concepts of sexuality and feminism (*Little Brown, NYC, $19.95*).

ULTRAVISION

GOES TO SOUTH CAROLINA FOR AMERICAN PLAYHOUSE

Misha Soslov, as Director of Photography says, I always insist on renting my camera and lighting equipment from UltraVision, whenever I am on location as well as in the studio. Why? Because I feel UltraVision Has the finest and most well maintained equipment available, along with solid service.

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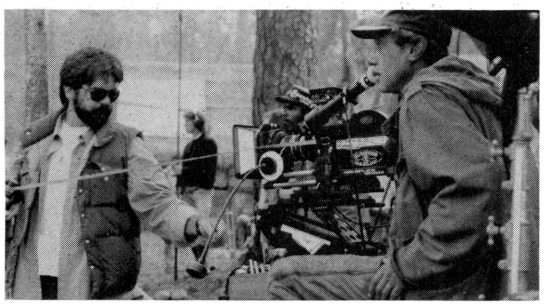

Misha Soslov, Director of Photography, Local 644 Mike Little, Assistant Cameraman, Local 659.

Misha Soslov, Jan Egleson on Camera.

Misha Suslov
Misha Suslov, a member of Local 644, started his first feature at the age of 21 years as that film's Director of Photography. He has done over 30 features in Russia, before coming to this country, two of which are "THE SEAGULL" by Chekov and "6TH OF JULY."

- ROANOAK for American Playhouse
- BLACK MOON RISING for New World
- 3:15
- COMMUNAL FLAT
- THE JOY THAT KILLS for American Playhouse
- SHADOW VOWS
- STRANGERS KISS

Misha Soslov, Director of Phototography, with Director Jan Egleson & Mike Little, Assistant Cameraman.
Photo By Richard Howard

Telecast on AMERICAN PLAYHOUSE
ON MONDAYS, May 26, June 2 & June 9, 1986
at 9 p.m. ET on PBS stations

ROANOAK - Produced for AMERICAN PLAYHOUSE

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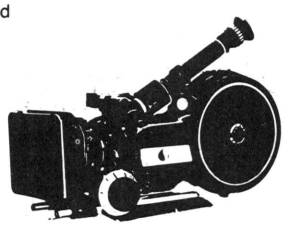

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Lightflex. An important creative tool is redesigned.

The Lightflex® Concept

Lightflex is an on-camera accessory, which overlays a controlled amount of light on the film at the time of exposure as the scene is being photographed. It allows the cameraman to modify the gamma curve of the film, *in the camera*, during shooting.

This can extend the photometric range of the film up to 2 stops, and provide more detail in the shadow areas without increasing grain.

Lightflex works exactly the same with video cameras, providing more shadow area detail with no increase in noise.

For special effects, Lightflex permits in-camera color modifications to either selectively tone the image or to create period effects.

Why a New Lightflex

The redesign of Lightflex had three objectives:

- **For the Assistant**, Lightflex had to be easy to use. That means it must be simple to set up, easy to maintain, and easier to handle with fewer parts required and fewer cases to hold it all.
- **For the Cameraman**, the System had to perform with predictability and repeatability. Lightflex is a creative tool. It must not be another worry.
- **For the Producer**, Lightflex simply had to be more affordable. It must add production values but not slow down production.

Three Significant Improvements

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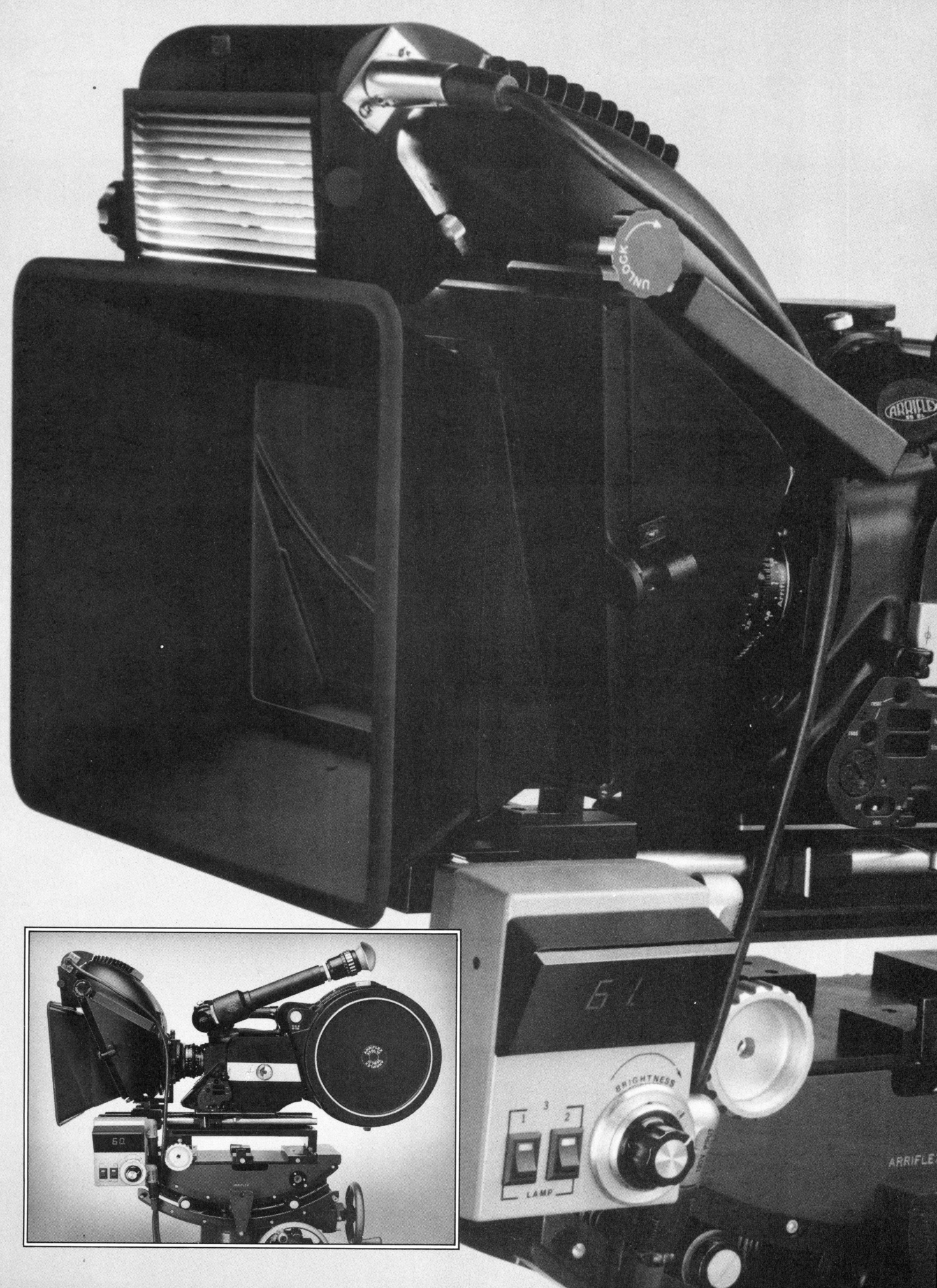
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Rocky IV, a Photographic Dazzler

Produced by Robert Chartoff & Irvin S. Winkler
Directed by Sylvester Stallone
Director of photography, Bill Butler, ASC

by Bob Fisher

Remember that boxing scene in *Rocky III* where Clubber Lane (Mr. T.) is pounding the champion with blow after blow? His fists strike with the driving force of sledgehammers. Rocky is a solid brick wall beginning to crumble. A vicious blow jolts the champ and sends a spray of sweat flying in all directions.

Rocky is like the *Titanic* after it hits the iceberg. He has met his fate. The only thing left to do is sink. But, there's a faint glimmer in Rocky's eyes. It's a very personal thing which passes between the actor and the audience. If you blink you miss it. Then, Rocky asks a taunting Lane, "Is that it? Is that the best that you can do?"

Now, Rocky fights back. The tide turns in a flurry of images and sounds, while the familiar, upbeat title music signals the audience that hope springs eternal. People start cheering and encouraging Rocky. It happens in every theater just like it is part of the script. The audience couldn't be more involved if they were in the cast. That's the magic of movie making.

So, what is the answer if you are Bill Butler, ASC, and Sylvester Stallone asks you to do it all over again with *Rocky IV*?

Any hit movie is a small miracle. But four times? It's like catching lightning in a bottle. How does a director of photography approach shooting a sequel of a sequel of a sequel? Rocky has already broken all the rules about sequels. They were once thought of as pale imitations. But, *Rocky II*, if anything, was more exciting than the original, and box-office revenues doubled. *Rocky III* also exceeded the success of its predecessor. And now comes *Rocky IV*.

What keeps people coming back for more of *Rocky*?

We discussed that question with Butler, who also filmed

Rocky II, and *Rocky III*. (James Crabe, ASC shot the original *Rocky*.) Butler believes that the Rocky character created and depicted by Stallone represents the quintessential American. "If you believe that any odds can be overcome by working and fighting hard enough, Rocky has a special meaning for you," he answers.

There are certain common threads that are part of the fabric of each succeeding generation of *Rocky* movies. For example, for drama, there is a repetition of Rocky's explanation to Adrian where he tells what being a man means to him. that's the bottom line; it is the reason Rocky answers the bell when others might quit.

And, of course, there are those unforgettable fight scenes. That's the core of the Rocky experience. Each fight must be the real thing. The audience has to take each blow in its own solar plexus, and feel the wind being driven from its own lungs every time Rocky is hit. If viewers do not believe that Rocky is in a fight for his life, they can't feel for him, and then the idea doesn't work.

Rocky IV is an MGM film, written and directed by Stallone. It was shot at practical locations in Canada, Wyoming, Nevada, and in areas around Los Angeles. Production was also done at MGM studios. The story pits the Stallone character against a bull of a Russian fighter, who humbles Apollo Creed and draws the aging champion once again out of retirement. The Creed fight is filmed in Las Vegas at the MGM Grand Hotel. The battle between Rocky and the Russian champion is set in the U.S.S.R. and filmed in Vancouver, British Columbia.

There are winter training sequences shot at Jackson Hole, Wyoming, where night temperatures dipped to 10 degrees below zero. Butler filmed Stallone running up a frozen mountain at the 11,000-foot altitude with heaters on the camera, shooting from a helicopter.

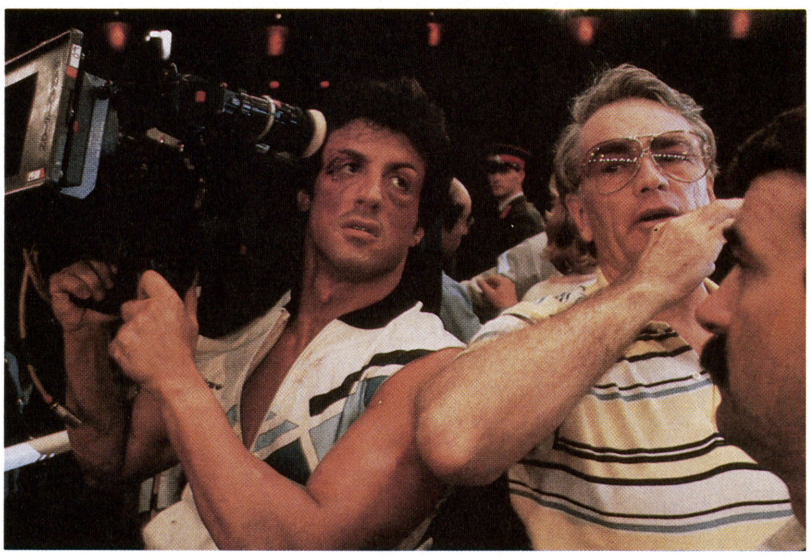
"It was bitter cold," Butler remembers. "The snow was two to three feet deep on the flat. You couldn't walk without snowshoes."

Seeing Rocky run up that mountain in the bitter cold makes a real story point. Rocky's opponent is an unfeeling machine who relies on science to build his body. The champ depends on a reservoir of raw courage.

For the winter sequences, Butler drew upon experience, and a cold weather wardrobe, which he collected early in his career when he shot title footage for *The Fox* in Canada. "The first rule," he says, "is to keep yourself warm. If you aren't properly dressed, you get cold and you can't function."

More experience: Never take a camera or film from a warm room into the cold outdoors. "The last thing you want is condensation to form on your lens elements," he cautions.

Camera equipment was generally stored in a truck where a single light bulb provided enough heat in the closed interior to keep the temperature around 32 degrees farenheit. The same was true



Cast and crew watch the video assist replay.

Below – *Director Stallone and DP Bill Butler.*

Opposite page – *A Panaglide operator moves in close to Stallone between rounds.*

Stallone as director lines up a shot.

of the film. "It doesn't mind getting cool," he says. "Just don't let it freeze, because then it can get brittle.

"The biggest problem we had was with batteries," he comments. "The colder it got, the less charge the batteries held, and the more we had to recharge them. If you are going to shoot in this weather, plan to bring many more batteries than you would normally use."

The footage filmed in Jackson Hole and Vancouver helps to establish the setting, and adds production value. However, Butler says that the real secret behind the allure of the Rocky movies is no secret at all. "The energy comes from Stallone," says Butler. "All the time he is training and working to be Rocky, he is pushing himself and everyone around him to excel, and this energy comes across on the screen."

During location scouting, Butler remembers flying from place to place with Stallone on a private jet with a video cassette recorder on board. They went through the *Rocky* films time after time until the smallest nuances were etched in both men's memories.

In a lot of ways, the look is the same as the previous *Rocky* movies. "Continuity is important," Butler explains. The audience comes to a *Rocky* movie with some expectations that have to be satisfied.

But, there are also differences. The visuals are more stylized; there are many more intimate shots on faces; and Stallone calls for lights glaring into the camera, and the use of star filters and red gels in fight scenes. "He knew exactly how he wanted it to look," says Butler. "My job was to give it to him. I think we had very good rapport."

Where does the ability to give a director the images that he or she envisions come from? Is it something you are born with, or do you acquire it with experience? The answer is probably a measure of both. Butler has somewhat of an uncommon background for a director of photography. He studied electronics at the University of Iowa, and started his career working in local television, in Chicago, where he won an Emmy for electronic photography.

Butler began shooting film with William Friedkin, who was a director at WGN-TV. That led him to Australia, where he shot a "quickly forgotten film" called *Adam's Woman,* and then on to Hollywood. His early feature film credits include *Rain People* and *The Conversation* with Francis Coppola, *Good Times* with Friedkin, *Jaws* with Steven Spielberg and *One Flew Over The Cuckoo's Nest* with Milos Forman. Add a couple of Emmy Awards to the mix for several made-for-TV movies, *Raid on Entebbe* and *A Streetcar Named Desire.*

Butler shot *Rocky IV* on Eastman color negative film 5247 and Eastman color high speed negative film 5294. He used the latter for all interiors and night exteriors, which accounts for the major part of the visuals. He rated the high-speed film for its recommended exposure index of 400, however, since he was working with Golden Panaflex cameras and a 200-degree shutter, he effectively gained a quarter of a stop.

For practical purposes, by allowing more light through the shutter (normal shutter is 180 degrees), Butler was working with a 500-speed film. That was more than sufficient even for the big fight scenes.

The big fight between Rocky and the Russian was filmed at an arena in Vancouver for a number of reasons, among the biggest being that this is genuinely cold country and people who came to see the filming were dressed appropriately. That was part of the illusion of being in Russia.

Butler covered the fight with eight cameras. Three were handheld at ringside. These were passed off as news cameras in the film. The other five cameras were maybe 30 to 40 feet back from the action with 250mm lenses providing a capability for zeroing-in from just about any point of view.

Most of the light came from overhead fixtures, and it was hot and glaring just the way the audience knows that it looks in a real fight, Butler explains. No one complains about heat in this kind of a sequence. They want to sweat, and the hot lights help to keep them warm.

The problem is that all of that overhead key light – maybe 200 or more footcandles glaring down – would have created harsh facial shadows. To compensate, Butler hung two pipes on opposite sides of the ring with a string of soft lights on each. These provided fill light in the ring at about eye level, and also spilled onto the

faces in the first 10 to 15 rows of the arena.

Butler wanted an aperture of at least stop T-4 for depth of field, and the 400-speed film and 200-degree shutter gave him more than enough latitude. "This film looks beautiful when you expose it properly," he says.

Butler says that there are times when he might choose to push the exposure latitude of the fast film to achieve a specific purpose or look, i.e., a night exterior, or for a shadowy interior. However, for *Rocky IV,* he wanted a full negative with sharp, crisp images, although he did use LC2 filters to slightly desaturate colors.

In fact, with the overhead key, most of the lens apertures were set at T-5.6 or T-6.3, depending upon the camera angles and relative positions to the lights. The level of light did fall off once you got past the first 15 or so rows, however that was by design. The shadows masked the five cameras back in the crowd.

At first, literally thousands of people jammed the arenas in Las Vegas and Vancouver filling every seat during the first days of filming. "The crowds were marvelously responsive at both fights," says Butler. "There were no cues. They just acted as though they were at a real fight."

However, as filming continued, and the novelty wore thin, the crowds got smaller. That was no problem since the illusion was created during the filming of the first rounds, and the full crowd is never seen later.

Strategy for shooting the Las Vegas fight, which was staged at the MGM Grand Hotel, was pretty much the same except that the fight was considerably shorter, and only five cameras were used.

Both fights were painstakingly choreographed just like a ballet. Every punch and reaction was carefully planned and rehearsed. "We filmed the fights sequentially," says Butler, "though, of course, we had to work in comparatively short takes."

Butler learned while filming *Rocky II* and *Rocky III* that he needed operators and assistants with the razor sharp reflexes of sports photographers.

"As carefully as you plan there are times when you expect to pan left and something unanticipated happens and you need to go right or zoom instead," Butler explains. "Maybe an actor slips and you want to catch the expression of surprise on his face, or a punch comes from an unexpected direction."

As he did throughout the film, Stallone had video taps on three of the cameras during the fight scenes, and there were separate feeds to tape recorders. That was one of the reasons why Butler used only Golden Panaflex cameras rather than older models.

"Even with the tap, we could always see what was happening in the viewfinders," he says.

Stallone didn't wait for dailies to see if he was satisfied with each day's shooting. He generally looked at the video on the spot, and if he didn't see what he wanted, they shot more.

This approach does have some detractors as it can be time-consuming and affect the pace of production. However, there is no arguing with success. Butler believes that the fight scenes will stand up with any, and, as he points out, *Rocky IV* finished shooting ahead of time and under budget.

Since all eight cameras (five at Las Vegas) were rolling from slate to cut, Stallone and editor Don Zimmerman, who also worked on *Rocky III,* had a tremendous amount of footage to work with during post production.

Most of the rest of *Rocky IV* was shot with two cameras, and Stallone always had a video tap on both. Multiple cameras improved coverage, and gave the editor more to work with, and also saved time.

The two big fights were probably the biggest photographic challenge, but there was also the problem of the snow. "We were shooting in Jackson Hole and Vancouver because of the snow,"

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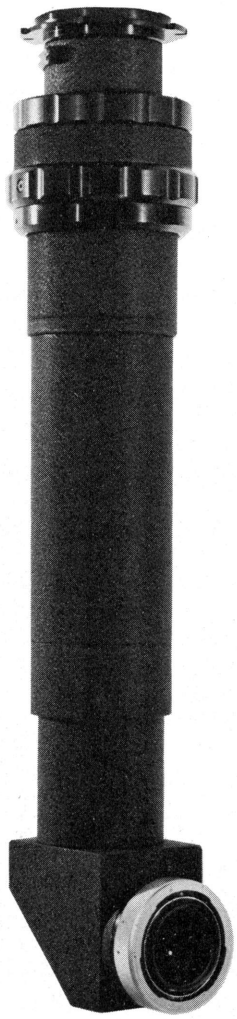

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says Butler. "Obviously, our job was to come away with beautiful snow sequences. We wanted the audience to feel the cold."

Nature cooperated by providing a major storm for the crew to shoot in. "You can never duplicate a real snowstorm on a backlot," says Butler.

It's easy enough to shoot believable snow. "Just expose for the snow," he exclaims. "It's not even a problem on medium and long shots where faces aren't discernible anyhow. A silhouette is acceptable and believable."

But, how about close-ups? If you use an arc or reflector for fill on faces, you can change the exposure enough for the beautiful, fresh, white snow in the background to turn a hint of gray. Butler handled this by placing nets and scrims just far enough behind actors' heads to be off camera. This reduced the glare and allowed him to use a little fill light on faces.

The result: The flesh tones are perfect, facial features are discernible, and the snow is milky white. There are various ways to solve this kind of a problem. However, Butler says that the key to the solution is understanding the emulsion that you are shooting with and what it can do.

"Instinct is knowledge that you don't know you have," he says. "If you know exactly what your film will do at different light levels, you can take some chances. People talk about painting with light, but I think that the emulsion is the paint that you lay to the canvas."

The snowstorm was one extreme where Butler's instincts or knowledge of the emulsion paid dividends. The medium-speed emulsion for 5247 film, which he used for shooting daylight exteriors, has a tremendous range of exposure latitude. "This film does give you an ability to work one or even two stops over or under without noticeably losing sharpness or increasing grain," he says.

At the other end of the scale, there were some gutsy interiors, including a moody, dark

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hallway where some intimate scenes were filmed, and there was Rocky's dramatic entrance into the arena. He walked through an almost black area with the entrance backlit behind him, and the only other light coming from arcs on the crowd in front. These times, Butler dug deep into the shadow areas of the high-speed emulsion with little or no fill light on the characters.

In situations like this, a variation of a couple of footcandles can cost you a stop. "We are using light meters today which are nothing less than handheld computers," says Butler. If you know what the film will do in this situation, you know how to light for the scene.

Lighting Stallone was another challenge. The champ has a tremendous body which he hones during his rigorous training. You use drop lights to emphasize Rocky's muscle tone, Butler explains, making the light and shadows fall according to his positions. But how about lighting his face?

"If you frontfill to cover Rocky's face you erase some of the effects of the drop lighting. In most scenes, the solution is to use a combination of top and edge lighting," Butler says.

Butler says that when he speaks at cinema schools, there are usually some very specific questions about situations like this. The truth is that there are no catch-all answers.

"The most satisfying thing for me in this business is making a really difficult shot so believable that no one knows that you did anything," he says. "If someone tells me that he or she liked the way that I achieved a certain lighting effect, I think that I must have done something wrong."

How about *Rocky IV*? Does it measure up?

Butler thinks about that question for a minute or two. Then he answers, "I believe that people are going to be cheering at the end, and they will leave the theatre humming the song and feeling good." △

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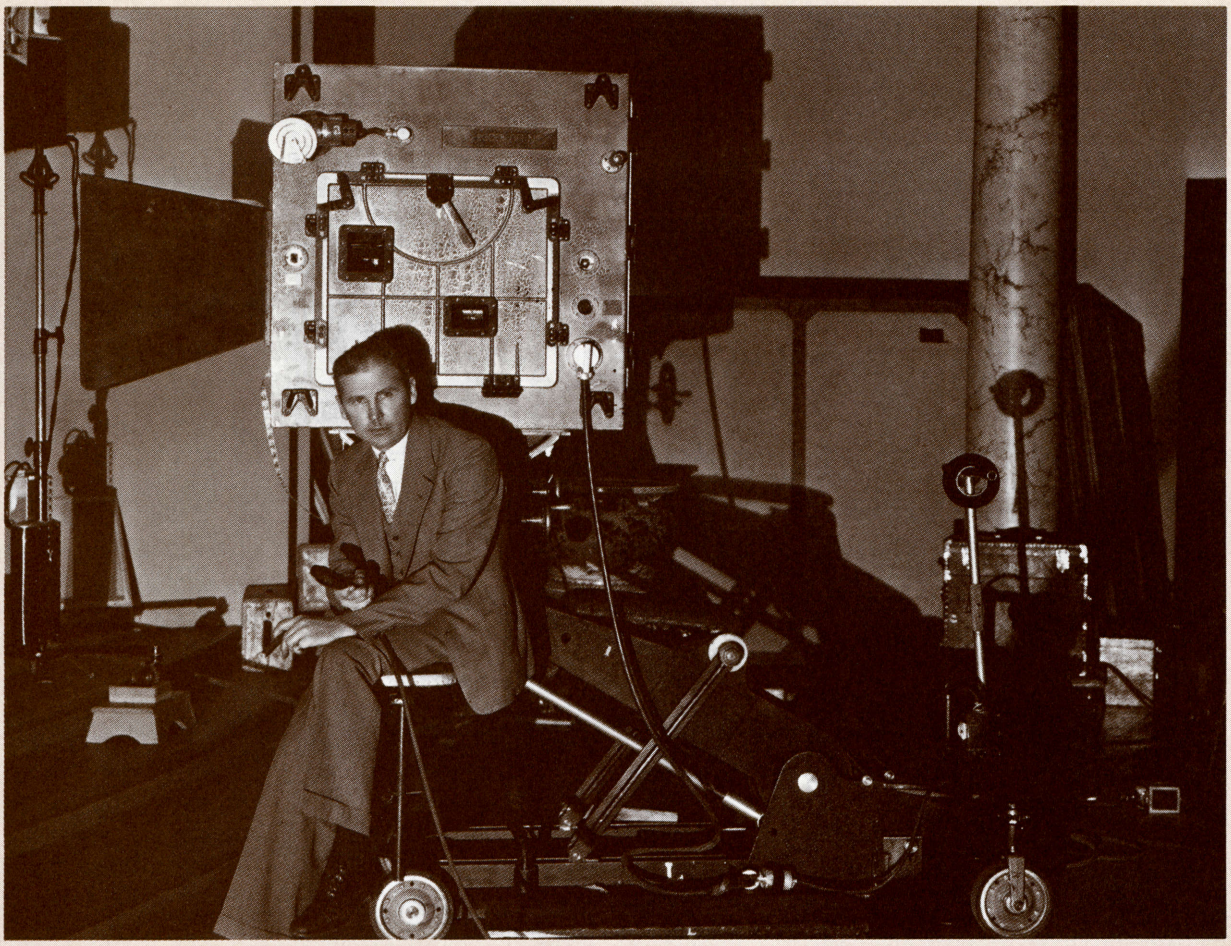
Wings of the Morning, an Important Film

by Anthony Slide



Ray Rennahan, ASC and the three-strip technicolor camera, circa 1935. (Photograph courtesy of George Mitchell).

Opposite: *In the film prologue, the Earl of Clontarf (Leslie Banks) and Marie (Annabella) are married.*

Wings of the Morning has obvious historical importance as the first Technicolor feature to be shot in Europe. Aside from this distinction, the film has considerable charm and appeal.

It is the first film to illustrate what most cinematographers now realize; that the light in England and Ireland is much softer than in California – or, for that matter, the rest of Europe – and it provides for a more subdued pastel effect than in most color films shot in the United States. Further, *Wings of the Morning* helped begin Harold Schuster's directorial career, and laid the groundwork for Technicolor's expansion into the British market, including the opening of a London plant within months of the film's completion.

In April 1935, British producer Michael Balcon had commented that "England is interested in color but is doing nothing about it because the American process is not available there." As if in answer to Balcon, a month later Dr. Herbert T. Kalmus of Technicolor announced that his company planned to establish plants in both London and Paris. Technicolor acquired an eleven acre site on London's Great West Road and built a $1.5 million laboratory. By April 1936, the trade press was announcing that every major British studio would have at least one color feature in its 1936–1937 schedule – something of an exaggeration – and Kay Harrison, Technicolor's new British managing director told reporters that six British companies had signed with Technicolor to produce 24 features and numerous shorts. The first feature was to be *The Sport of Kings* (which became *Wings of the Morning*), followed by *Lawrence of Arabia* (which was to remain only a project until 1966). At the same time other color systems were being promoted. Associated Talking Pictures at Ealing Studios announced that it would film *Hassan* in Raycol, but the production was cancelled. Dufaycolor was in general use, and Harmonicolor was announcing ambitious plans.

The man behind *Wings of the Morning* was American producer Robert T. Kane. He had been involved in European production for both Paramount and Fox, before returning to the United States in 1933. He returned to Europe in 1936 to produce four features for his British-based New World Pictures, which appear to have been subsidized by 20th Century-Fox. Kane's first British production was *Wings of the Morning*, with a budget of $500,000.

In the late spring of 1936 a contingent of Americans came over from Hollywood to commence work on the production at the newly opened Denham Studios – just outside of London – the home of Alexander Korda's London Productions. (*Wings of the Morning* was announced as the first film to be made at Denham, although other features were in simultaneous

Disguised as a boy and forced to spend the night with him because of a storm, Maria first realizes her affection for Kerry (Henry Fonda).

production.) Leading man Henry Fonda, on loan-out from Walter Wanger Productions, was making his first visit to England, and while filming *Wings of the Morning* was to meet his future wife, Frances Seymour Brokaw. From the Technicolor Corporation came both Dr. and Mrs. Kalmus, along with cinematographer Ray Rennahan, ASC. Glenn Tryon, a former light comedian in silent features, was the assigned director.

Tryon did not last too long on the production. He oversaw some of the location shooting in Ireland as well as the filming of the Derby, the famous race for three-year-old colts and fillies which has been held annually since 1870 on Epson Downs just outside of London. Then, following a disagreement with Kane, he was taken off the film, and by July 1936 was back in Hollywood. To replace Tryon, Kane selected a 34-year-old editor named Harold Schuster, who was already in London expecting to be involved in the editing of the feature. Schuster had been active in films since appearing as a child in *The Birth of a Nation*, and his finest achievement as an editor is undoubtedly *Sunrise* (1927). "It all happened so fast," he recalls. "Bob Kane was a friend – I had worked with him in the early days. It was a very happy relationship. I don't know why he selected me, to tell you the truth, although I was pretty well versed in film." The choice of Schuster may well have been made in part by 20th Century-Fox production head Winfield Sheehan, who had written of Schuster. "He has the experience, character and mentality for a good director." Later Sheehan was to write directly to Schuster:

"I am sure you will give a good account of yourself in your first job of direction, although the additional burden of color is on your shoulders. The worst you can get out of it is a lot of hard experience which will stand you in good stead in the future. I think that a couple of years in London directing pictures will do you a world of good, and give you a broader and more international slant on life and people. I am sure that one day you will be a successful director, because I believe you have vision, initiative and imagination, in addition to technical knowledge and experience."

Ray Rennahan found a number of other American cinematographers at work on the Denham stages. John Boyle, ASC, Al Gilks, ASC, James Wong Howe, ASC, Phil Tannura, ASC, Lee Garmes, ASC, and Roy Clark. William Hornbeck was the studio's editorial chief. René Hubert was costume designer on *Wings of the Morning*, and, indeed, the only major technical credit on the film which did not go to an American was that of art director, handled by former British architect Ralph Brinton. Much to his suprise, Rennahan discovered that only one of the first cameramen at Denham was not an American, and he was a Frenchman, Georges Perinal. Rennahan noted that the majority of English films were being shot with Mitchell cameras, and that the lamps were provided by Mole-Richardson, which had just opened a factory in England, under the direction of Robert Linderman.

In *The International Photographer* (December 1936), Rennahan reported: "The Denham plant is completely equipped with the very latest types of Mole-Richardson lamps – 18's, 24's, rifles, solarspot, 'juniors' and all the rest of the family down to baby spots. As we were shooting Technicolor, our set was naturally rigged with Mole-Richardson 'H.I. Arcs,' side arcs and scoops, exactly as though we were in Hollywood. Denham has enough modern Mole-Richardson equipment to take care of all the companies their six stores accommodate at once, and arcs enough to meet any demand a Technicolor unit might make."

On the negative side, Rennahan found the fog very troublesome – it even got on the sound stages – and noted that the weather could destroy a standing set in less than a year. On a personal level, he was disappointed that "grips" were virtually unknown, that property men were not reliable, and, above all, that the electrical crew did not understand lighting and were of little help to the cameraman in preparing a set for his style of lighting.

If Rennahan was not too happy with some of his British co-workers, many of them were far from enthusiastic about Robert Kane's working methods. There were complaints that the unit displayed a total disregard for the health and welfare of its crew, who were expected to work 16 hours a day, beginning at 7:30 in the morning, seven days a week. On more than one occasion, technicians complained they worked over 100 hours, straight time, a week. The British technicians also protested the non-payment of overtime, suggesting that if the American producer paid his British employees on an American basis, they could almost pay off Britain's war debt to the United States.

The operating cameraman on the film was Englishman Jack Cardiff, who had been chosen from half-a-dozen assistant cameramen at a late night, secret meeting at Denham some months before production began. Unable to answer the technical questions posed by Technicolor's representatives, Cardiff discussed the lighting used by the great masters in their paintings. The next morning he was informed that he

Annabella (left), Stewart Rome, Edward Underdown, and Henry Fonda.

was the company's choice. Some years later, Cardiff wrote, "I shall always remember the first sight of the Technicolor camera emerging, like Botticelli's painting of Venus rising from the sea. As the unpacking continued, it became apparent that Technicolor's camera equipment and efficient methods of working were greatly ahead of our own. Everything connected with the camera was first-class – like a Rolls Royce."

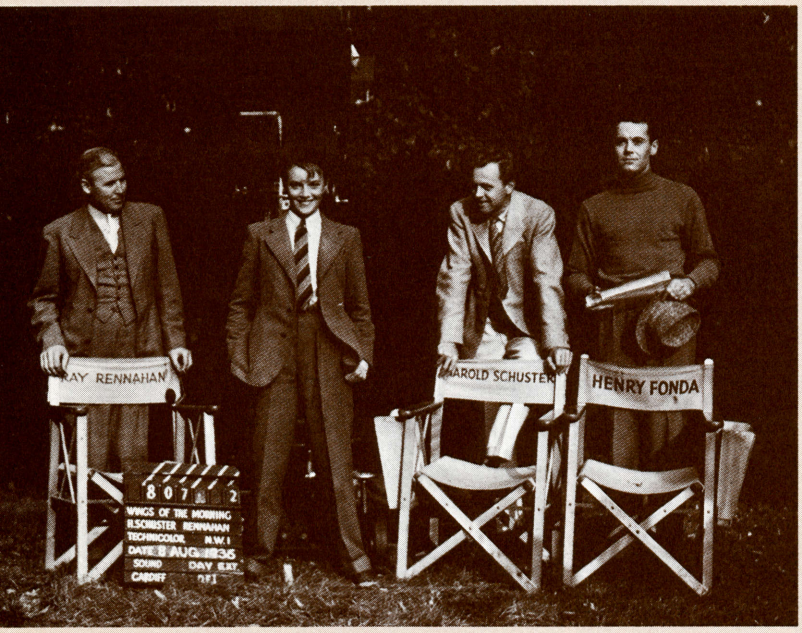
Stage Two of the Denham Studios was utilized for the film, with the first interior in Technicolor to be shot on British soil – in June 1936 – being that of French actress Annabella (in her first English-language film – assistant to the producer William Burnside had to teach her English) in the prologue, which involved the marriage of the Irish Lord, played by Leslie Banks, to a gypsy girl. The gypsy encampment, which features prominently in *Wings of the Morning,* was built on the banks of the River Colne, which flows through the Denham grounds.

John McCormack, the great Irish tenor, was not signed until well after the film was underway, in July 1936, and his casting was obviously an afterthought by Robert Kane. It was an unfortunate afterthought, for although McCormack's voice is as gorgeously mesmerizing as always, the three songs which he sings slow the film down badly. However, it must be admitted that without one of them, "Killarney," it would not have been possible to introduce some beautiful shots of the Irish countryside photographed by the second unit over a two-week period.

Shooting was completed by September 1936, and Schuster returned to Hollywood to edit the production. Because there was not an operating Technicolor laboratory in England during *Wings of the Morning*'s production, Schuster could only view the rushes in black-and-white.

Wings of the Morning tells the story of Marie, Queen of the Gypsies, who returns to Ireland (where she had married some 47 years earlier, the Earl of Clontarf and, following his death, been cursed for the next three generations of her family). Here she is joined by her daughter Maria (Annabella), who has escaped from a revolution in Spain. Maria falls in love with a Canadian horse trainer, Kerry (Henry Fonda). Following various misunderstandings the chief of which is Kerry's thinking that Maria is a boy, Kerry trains Marie's horse, "Wings of the Morning," to win the Derby. The curse is lifted, and Kerry and Maria are married.

Despite its melodramatic and rather cumbersome storyline, which is adapted from a piece by Irish-American writer Donn Byrne, *Wings of the Morning* has a winsome charm. It is colorful in every sense of the word. The shot of a red London double-decker bus takes on a rare beauty. A yellow signpost for the Automobile Association seems almost lyrical. At times the colors are positively ravishing, and at other moments, particularly the scenes of the Irish countryside, the color is subtle; the sky is grey and the "green" hills and vales of Ireland appear mystically subdued. As British critic Basil Wright commented, in *The Spectator,* "There is a bloom which the black and white film can never achieve." Fur-



***Rennahan, Annabella, director Harold Schuster, and Fonda on the set of* Wings of the Morning.**

ther, *Wings of the Morning* vividly illustrates a comparison made a little earlier by Pioneer Pictures publicist, Paul Snell, who likened black-and-white films to Harlem in a snowstorm, and Technicolor pictures to a field of spring flowers.

Mrs. Natalie Kalmus explained the coordination of the colors in *Wings of the Morning:* "In this picture we have tried to preserve one level of color throughout. Over half the picture was filmed out-of-doors, so that in these scenes the predominant color is the soft and restful green of the English countryside [she meant Irish countryside]. Even in the gypsy prologue to the picture, where some of the costumes are very vivid, they are offset by the masses of green. When we cut from these exterior scenes to interiors we try to preserve the same 'high level.' Our sets are brown, grey and green – warm, rich shades of color for walls, furniture, tapestries and curtains, but all soft and tending to absorb light rather than reflect it. In this way the colors of the interiors and exteriors are kept at the same level.

"In the preparation of a color picture such as *Wings of the Morning* we read the script and prepare a color chart for the entire production; each scene, sequence, set and character being considered. This chart may be compared to a musical score and amplifies the picture in a similar manner.

"If colors are properly handled it is possible to make it appear as though the actors were standing there in person, thus creating the illusion of the third dimension.

"There was one more slogan too, which everyone applied: 'Color is not the star of the pictures – it is an additional factor. Don't use color for color's sake."

If the color is above criticism in *Wings of the Morning,* the pacing is not. At best it is leisurely and at worst, slow. It moves along at its own speed, at times seeming to hesitate as to which plot route to take, at other times throwing in incidents which have no relevance to the story. If the direction seems a little haphazard, it is also genuinely sincere and sensitive to its subject matter. Perhaps as one critic wrote at the time, *Wings of the Morning* breaks every canon of decent filmmaking. Yet, surely *Wings of the Morning* is a revolutionary film in its way, and should look, in every sense of the word, different from other films of the period.

Certainly, although the critics were dubious as to the film's importance as a motion picture, they were wildly enthusiastic about its color cinematography. "The film justifies the whole business of colored films more than it is possible for me here to convey," wrote James Agate in the British *Sunday Times. Time* wrote of its "impudent, abstracted charm." *Variety* considered *Wings of the Morning,* "one of the few features in color which is not merely a demonstration of color."

Harold Schuster, Robert T. Kane and Annabella were reunited for their next film, *Dinner at the Ritz,* which went into production at Denham as *Follow the Sun,* with Phil Tannura photographing. Schuster was later to direct *My Friend Flicka* (1943), *So Dear to My Heart* (1948) and *The Courage of Black Beauty* (1957), among some twenty-seven other features.

In July 1937, Dr. Kalmus announced that Alexander Korda had signed a contract with Technicolor to produce six films in the process at Denham, beginning with *The Divorce of Lady X,* starring Merle Oberon, Laurence Olivier and Ralph Richardson. Mr. Kalmus was to remain in London to supervise the productions. Also at Denham, Lawrence Butler, director of special processes of London Films, became the first man to achieve optical double-printing in the Technicolor process, superimposing a shot of the Denham Laboratories upon another shot of the River Colne. By the end of 1937, Technicolor was able to report that its London plant was working at full capacity, processing 2-million feet of film a month.

In Europe, thanks to *Wings of the Morning,* the age of the Technicolor feature had arrived. △

Wings of the Morning
A Twentieth Century-Fox Release
(1937)

A New World Pictures *Production; produced by* Robert T. Kane; *directed by* Harold Schuster; *screenplay by* Tom Geraghty, John Meehan, Brinsley MacNamara; *based on the story, "A Tale of a Gypsy Horse" by* Donn Byrne; *cinematography,* Ray Rennahan, ASC; cameramen, Henry Imus *and* Jack Cardiff; *art direction,* Ralph Brinton; *costumes,* Rene Hubert; *music by* Arthur Benjamin; *film editor,* James Clark; *running time,* 88 minutes.

Prologue: *Marie,* Annabella; *Lord Clontarf,* Leslie Banks; *Mairik,* D. J. Williams; *Valentine,* Sydney Frost; *Police Sergeant,* Pat Noonan; *Gypsy Dancer,* Hermione Darnborough.

The Present: Maria, Annabella; *Kerry Gilfallen,* Henry Fonda; *Sir Valentine,* Stewart Rome; *Paddy,* Harry Tate; *Marie,* Irene Vanbrugh; *Jenepher,* Helen Haye; *Don Diego,* Edward Underdown; *Jimmy,* Mark Daly; *Angelo,* Sam Livesey; *Don Frasco,* Emmanuelo; *Benito,* Nicholas Nadejine; *Racing Commentator,* Captain R. C. Lyle; *Himself,* Steve Donoghue; *Himself,* John McCormack.

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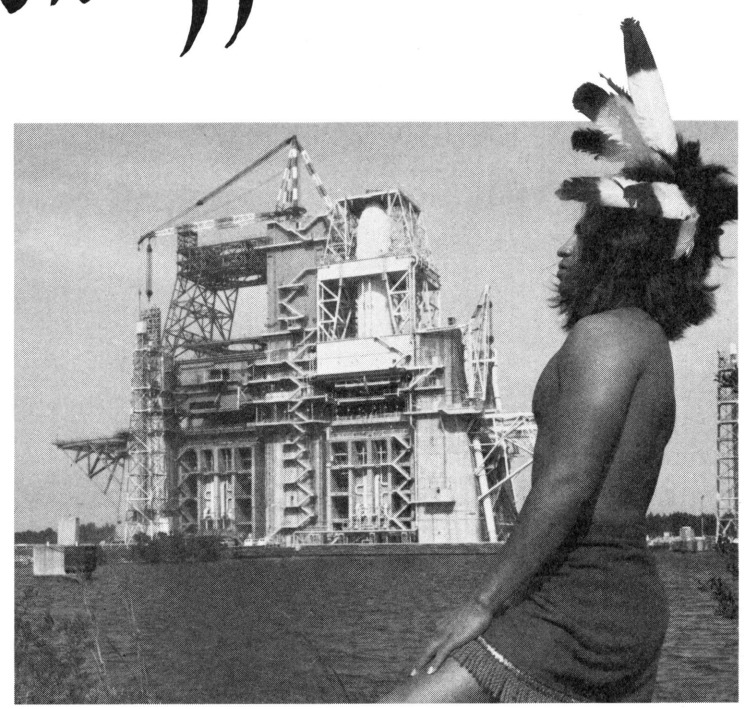

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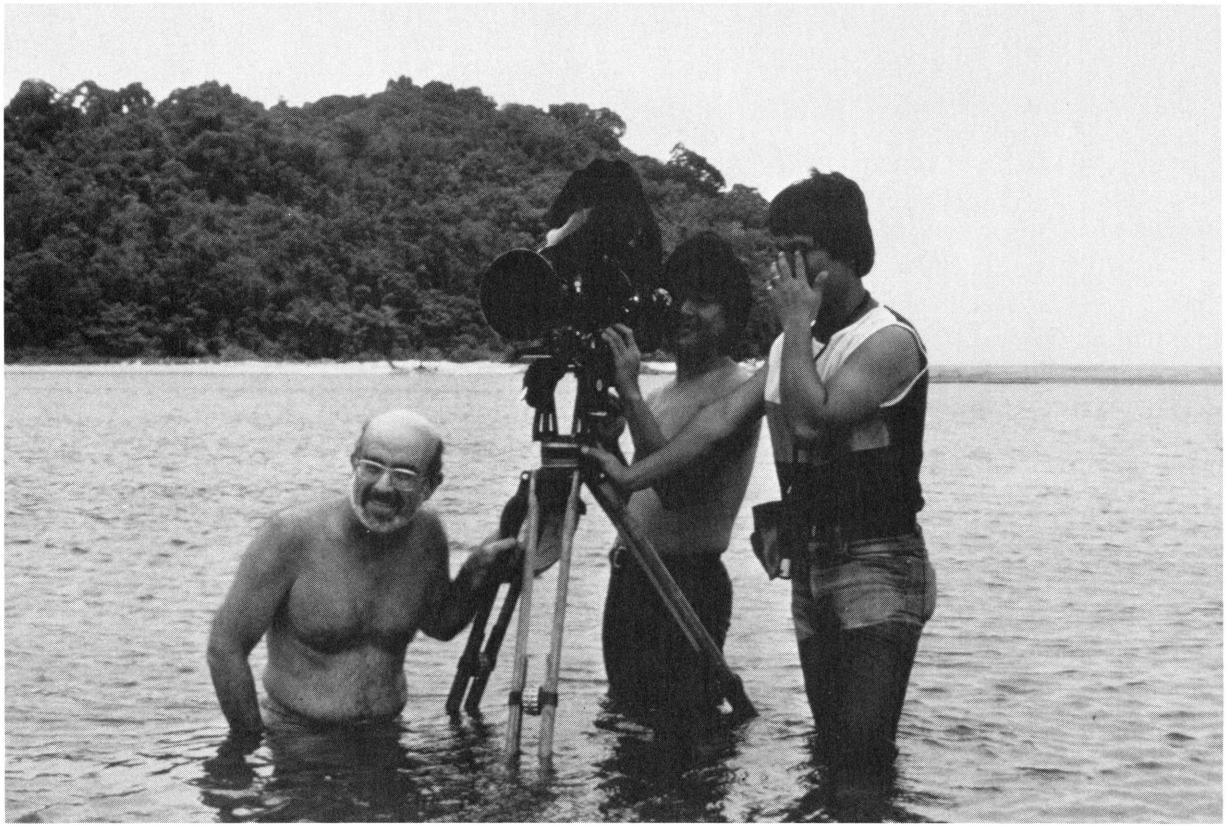


Low Light at Noon

by Barrie Smith

Kuala Lumpur, Malaysia: You're facing a six day exterior shoot on a beer commercial. The forecast is moist, and you're shooting at the beginning of the wet season. What to do? Get the agency writer to bring along her ever reliable Sumatran bomoh stick – as used and recommended by the local magic man.

What to do when you shoot all day in a steaming, hot, un-airconned studio that has glaring daylight from one wall obscured by an ancient canvas Hindi film hoarding?

Lunch is served for the crew. The Malays tuck into peanut saturated, chilly hot curry chicken. The Chinese engorge lengthy yards of oily noodles, and the Indians sink their magnificent white teeth into saffron rice and calves liver that is so curried it needs an octane rating.

As you eat, a seven foot python falls near your feet and tragically performs its painful death throes right in front of your eyes. As you shoot at night large bats swoop and curve from the lighting gantry, under your script arm, and beneath your seated, outstretched legs.

Your rushes come back covered with white neg dirt that the lab swears is dirt your studio projector has added to the emulsion.

This is movie-making Malaysia style.

When faced by all these strange and sometimes disturbing sights and situations I took it easy, relied upon the crew and got on with the job. A little slower than in my own country, but got there just the same.

I had accepted a year's employment with a commercial producer in Kuala Lumpur, the land-locked capital of Malaysia. Wedged between Singapore and Thailand, Malaysia is a multi-cultural community. Its eastern territories of Sarawak and Sabah have an added mixture of Borneo tribesmen.

A twelve year acquaintance with the country had prepared me for the worst – and best – that a long stint would reveal.

If I found the faces and costumes in front of the camera bizarrely different, then those behind the Arriflex were equally exotic. The call sheet each day would read like a *dramatis personae* from some exotic Eastern fable. DOP-Yeoh Gaik It; Electrics-Hamid Ali.; Gopher-Baldev Singh. Without exception they all made the working life of this lonesome expatriate much easier, displaying resourcefulness in difficult situations that I have rarely found in other parts of the world.

They had names for me, of course, but none as derogatory as those thrust at a director in the UK and Australia: Kwei-Lo (Red Devil), Orang Putih (White Man), and Corky (Caucasian) were about as far as they ever descended. Courteous? Yes.

I've worked in English-speaking countries where the presence of a foreign-born director is distinctly resented. In Malaysia, the opposite. Whilst you are never sure that the disgruntled grip muttering to himself in Malay is hatching evil plots, it's more likely he longs for 'makan' time (food), the break being delayed beyond reason by the over-zealous expat.

In Malaysia the film industry is under threat from many directions. Feature production is struggling, there is no studio system, and imported product combined with a knife edge economy prohibit a huge flow of capital into risky entertainment movie-making. By contrast, commercial production is flourishing. A wise and culturally-proud government protects local ad makers from international competition. In these days of multi-national advertisers you will of course see Coke, McDonalds, and KFC commercials identical to the US originals – with a darker-faced cast. But, because of the religious and cultural complexity of the country every commercial on TV and in the cinema is Malaysian-made – and looks it.

Opposite page: ***Smith and crew in the South China Sea, off Malaysia's East coast.*** **Above:** ***Film and boat crew help load up after shooting session.***

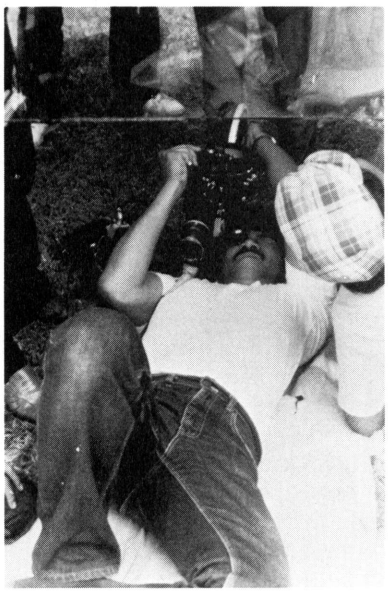
Foreign directors are allowed in – begrudgingly – and only after careful scrutiny. There must be an understanding that they carry unique skills, with the ability to impart them to local technicians. Directors of photography are forbidden to work, although a number of occasions in recent months demonstrated that rules can be broken. There is usually a government official who can be persuaded to help.

From my observations of commercial-making in Malaysia there would be decidedly more transfer of techniques and skills if a priority system were introduced that allowed production managers to enter, followed by selected cinematographers and my own craft, directors, way down the line.

At completion of each commercial a declaration is signed by key members of the agency and production house responsible for the ad's creation. Without this, I was assured, the commercial is not considered to have been 'Made in Malaysia,' and cannot be broadcast on television. It appears on the outside to be a magnificent deterrent to illegal foreign content or labour. Not so. The author and a local cinematographer were witness to one of their efforts, a 20 seconder, going to air without signatures on the MIM form. On other occasions a foreign DOP shot the film, and a local technician's name used in his place.

In all this there is a determined effort by the KL Producers' Guild to 'boot out foreign directors.' They may well be right – but, as I have said, there is a need of production management and cinematographic expertise. By these means Malaysian technicians stand a chance to move ahead.

No criticism is implied of Malaysian cameramen – they're a tight shooting, energetic bunch. But they rarely get a chnace to practice the more advanced techniques with state of the art tools. Because of high tariffs and a short-



A pillow beneath the back of Zainal Othman relieves a little of the pain of this shot. **Below:** ***Othman doing things the hard way.***

age of working capital there exists a painful shortage of equipment the Western counterpart would 'not leave home without.' No Steadicam, Louma Crane, hot heads, Snorkel lens – that's the stratosphere; no mini-Inkies, few Elemacks, almost no Mitchells, no Panavision, no rental companies – that's sea level for even the humblest altitude of Western filmmaking.

Being a believer in the importance of the Camera Dept in filmmaking I found many executives to be strangely forgetful of the role of the cinematographer and the need for adequate camera and lighting gear.

A continuing struggle persists between the agency/production house interests and the oddly titled Ministry of Information, for their restrictive and sometimes mysterious guidelines for commercial content.

Disco scenes are not allowed. No jeans advertsing. But, Levis are on air. How, I'll never understand. Characters shown should be in accordance with the New Economic Policy.

No pork, liquor or cigarette ads. The first two are understandable in an Islamic state; although, intriguingly, cigarette brand names spread generously across the airwaves via the Kent Travel Agency, Camel's Leisure Wear Shop and Winston's Sports Magazine. Presumably, if you publicized 'Pork Sausage' shoes on sale at the local butchers', you would be on air.

Women should not be projected in scenes which could bring about an undesirable effect. 'Decently dressed' means covering the body between neck and knees. Arms to be exposed only to the edge of the shoulder. Given the spectacularly beautiful faces of Malaysian women, things are not all that bad for the viewer-voyeur; a well-clothed neo-Victorian eroticism results.

To a Westerner some of the regulations seem very odd and often archaic. But it has to be remembered that Islam has rock-solid beliefs and there must be strict adherence to traditional behavior as laid down in the Koran. And there are Buddhists to be considered, and Hindus, not forgetting the growing Christian section of the population. The latter, in the shape of the Roman Catholic Church hugely entertained followers of all the Asian faiths when it tried to prevent telecasting of the anti-clerical *Thornbirds* miniseries in late 1984. A pro-Israeli effort, the Golda Meir biography starring Ingrid Bergman was televised to a storm of protest by traditional Islamic elements. Christians in – Jews out.

When bureaucracy intrudes into the regulation of any artistic endeavour there are bound to be hiccups, whether a 20 second ad or a 90 minute feature. In Malaysia the hiccups sometimes become belches.

The foot, when used by a Malay, can sometimes indicate aggression, intended violence, or at least insult. The author ran afoul of the advertising code in one scene of a commercial for a holiday resort. A relaxing holiday-maker, arms behind head and feet stretched towards the camera, caused considerable disturbance when it was discovered the poor actor's feet were facing camera. Insult, insult!

On another occasion a tie and tailed butler, serving coffee to his master, ignited the ire of the approvals board when it was pointed out by a member that no Malay royal family employed a butler dressed in such a decadent Western style.

I found myself relying on the cinematographer for more than 'a pan, a tilt and a T-stop'; he

was often the authorities' man-on-the-spot with a yea or nay as to what may be approved. Only through the viewfinder can you see how low the decolletage swoops, how deep is the armpit, how high is the thigh. It seemed so unfair that I had to burden the hapless cameraman with weighty judgments on whether the lead girl's pants were lasciviously tight, or was her shapely lap decorously draped and concealed in copious folds of cloth.

Malaysia is a mere whisker above the Equator. The sun rises at rocket pace, and drops at day's end with an almost audible bump. One team endeavoured to apply the magic hour principle, which is commendable but an exercise close to futility. The 'magic minute' is closer to it.

Bashing my 35mm stills camera away at every opportunity on the exotica before me I discovered an odd thing about Equatorial sunlight. When it's high – it's low.

Temperate climes have the advantage of a lowered angle of the sun source, particularly from autumn to spring. Choice of the season, or early and late in the day shooting times can infuse texture into the facades of churches, castles, or almost any structure that displays a surface cladding of ancient stone or peeling paint.

In Malaysia the hour centered around noon creates the same glancing, acute angled light source. Hard sunlight skidding across the fronts of ancient houses and temples revealed all the interest in the building's surface texture.

Malaysian cameramen constantly faced difficulties when photographing faces. A multi-racial society often produces a multi-racial medium shot. Frequently a group shot included lightly tinted Chinese faces, chocolate Malays and night-black Indians. I'm afraid Mr. Eastman's much-loved color stock was never designed to cope with a range of tones that would even have defeated Ansel Adams' otherwise admirable Zone System.

Place this range of skin tones against a deep green-brown jungle background, and you find yourself in a no-win situation.

Most of the year finds Malaysian sunlight performing in a manner most unbefitting a Westerner's idea of the hot, sun-lashed Tropics. The light is often soft – humidity is in the air, a light scrim of vapourized water covers all. But, bright it still is.

Many crews find themselves shooting outside with little to oppose the high luminance of the overhead sun. It's often difficult to tap onto high amperage power when on location, coupled with the unfortunate shortage of lightweight luminaires. Reflectors rule the day.

Move inside and things become a little more controlled. However power blackouts are disturbingly frequent. Kuala Lumpur is moving through a painful period of rapid growth, the old wiring and inadequate power sub-stations frequently prove insufficient. Power station fires are all too frequent. I experienced blackouts while shooting that were day long. With no emergency power generator to hand the only resort you have is to carefully put the Arri back into its box, slowly lay your head upon something soft, placing the right hand gently beneath the cheek – and zzzzz.

Corrosion of metal parts and fungus between the lens elements are a constant and expensive problem. Magazines have to be meticulously barneyed from the 90-100 degree heat of the sun.

Unprotected rawstock has the shelf life of a curl of butter. One company had to dump thousands of feet of high speed Eastman color due to lack of a refrigerator in the camera room. Once the error of their ways was diplomatically explained, the manager's bar fridge was hurriedly debeered and refilled with the rawstock.

Prior to March '85 negative and dailies were processed in Japan and Australia. Toei and Far East in Tokyo, and Colorfilm in

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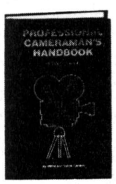

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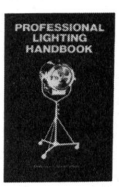

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Sydney, gave reliable and high quality service. The penalty of this was anything from a four to ten day turnaround. Japan suffers from a lumbering customs arrangement that prohibits direct transit from plane to lab. Australia suffers from all-too frequent industrial action at airports and peculiar troubles like off-loading of urgent freight at Singapore and Hong Kong.

To their ultimate benefit the Malaysian producer is now obliged to place all his processing, including opticals, with the two 35mm color labs in Kuala Lumpur. There was much initial objection, as one of the labs is government-owned, the other, part of a competitive and well-established film producer – 'the opposition.' It was felt that the government operation, Film Negara, would be un-sympathetic to the precision and urgency demands of the commercial producer. The private lab, film pioneer Dato' Krishnan's Gaya Laboratories, showed signs at an early stage of caving in on the point of quality. Fortunately, the expert help of the original installers, Colorfilm/Filmlab, have straightened out the product, both operationally and chemically.

The next challenge is to educate the rest of the industry in color perception. At one stage I thought that half of the advertising and film profession were color blind, but it was only after months of careful listening and watching that I learned that much of the misunderstanding arose because people who were only tenuously linked with the picture making process were passing instructions to the laboratory that would have been more helpful to a color grader making his morning coffee, than the color correction of an answer print.

Terms like ... 'washy, hazy, milky, glowy, bluish, yellowish, greenish, greyish' ... were used to indicate possible subtle alterations to contrast, density and color balance.

To accommodate this imprecision in terminology, the labs obligingly produced dailies that were graded and color corrected. With the result that any cinematographer worth his salt was getting a print that gave him and the lab a perpetual case of tail chasing. All to please the producer and the agency. Sense now prevails – standard 25-25-25 lights are now used, and if the DOP wanders off the rails a little he now knows it's 'all his own work.'

Those who are in the forefront of commercial picture making are Cheong Yuk Hoy, Yeoh Gaik It, and Mohd Ali Hanafiah Jaafar. Company staffers such as Kumar and Mohan produce images that belie the minuscule Malaysian budgets.

It's easy to forget, when stuck in traffic between a Mercedes 500 and a rusting Datsun, that the average income per head is US $1,000 p.a. Fifteen million people comprise not only a divergent mix of religions, culture and languages, but a spreading range of capabilities and living standards. Millionaires are not uncommon, subsistence farmers abound – and in between is a rising percentage of urban, middle class wage earners.

An average commercial can cost US $5,000 to $20,000. Occasionally a big budget project will hit US $200,000 – but that's rare. A freelance camera assistant can earn US $60/day, a director of photography US $1,000 for a 'package deal' involving meetings, and a shoot for 2–3 days. A feature that goes beyond US $80,000 is headed for fiscal disaster.

There is strong competition from Indonesian films, the language being virtually identical. Indonesian films are allowed free access, however the reverse is not the case. There may well be an element of the Malaysian film presenting an unsophisticated 'country cousin' facade that is resisted by the Indonesian distributors.

A first class seat in a KL cinema costs just over a dollar US, this gives you a basic two-hour movie plus commercials package. A maximum of four sessions a day is offered, with the cinema proprietors complaining that the mere cost of keeping the premises open/hits US $700/day. Maybe, as other countries have found, continuous screenings would help.

But, the pictures that do pull are the ones that fire the box office all over the world. *Rambo* grossed a half million in Malaysia and Singapore over a fortnight. Together with *A View To a Kill* the record grosses were particularly of note in that they had the novel advantage of Malaysian copyright, a relatively new feature on the Malaysian scene.

May 17, '85 saw the Malaysian Supreme Court rule that it was illegal to copy foreign works. Prior to this there was a flourishing trade in VHS/Beta tapes openly being sold and hired. *Star Wars* could be hired for US 70c a night, or bought outright for US $12.

The Film Development Corporation (Finas) is attempting to act as a godfather over the industry scene, recommending in February '85 that the 25% tax be removed. Another area of Finas' assistance is, for Asia, a comprehensive range of equipment for hire to producers. This includes Arri 35BL, Arri 3, Aaton, lenses, lights and grip equipment. In a country where duty is levied on film equipment at horrendous rates, the facility is welcome.

Also in February was the Corporation's purchase of the near-historic Merdeka Studios, on the outskirts of KL. Paying US $600,000 for a two studio complex, ancillary buildings and backlot 40,000 square yards in area, full renovation is promised. An allocation or US $2.5 million permit equipping with the latest film and video gear. Having worked a number of times in the Merdeka stages, I find them just like any of the older type studios – full of atmosphere, and entirely workable. Maybe they are hot, light leaky, untidy and rambling. But they are big; you can drive a car in – and they are high, with useful gantrys.

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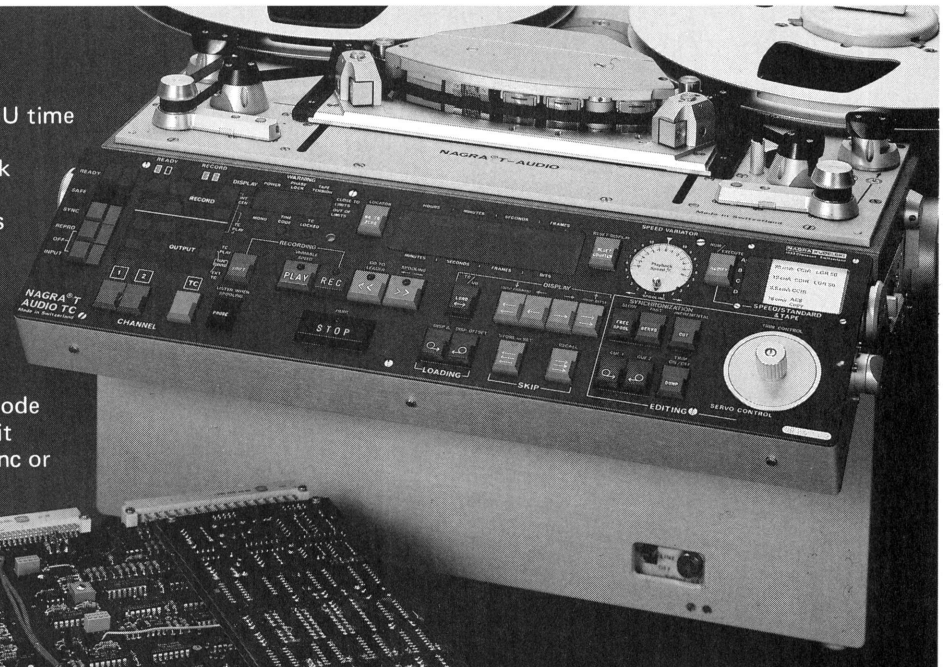

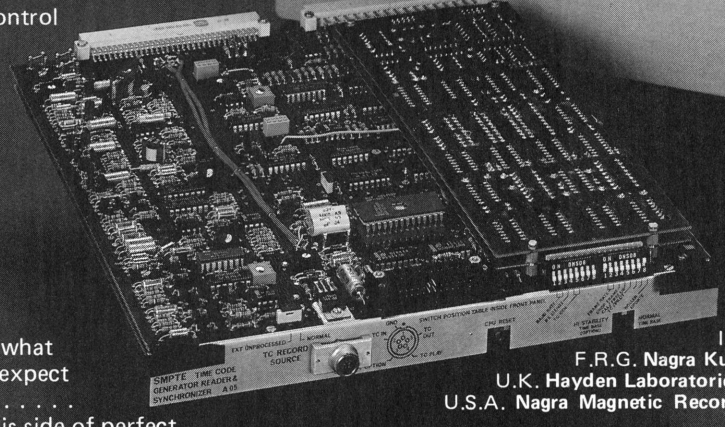

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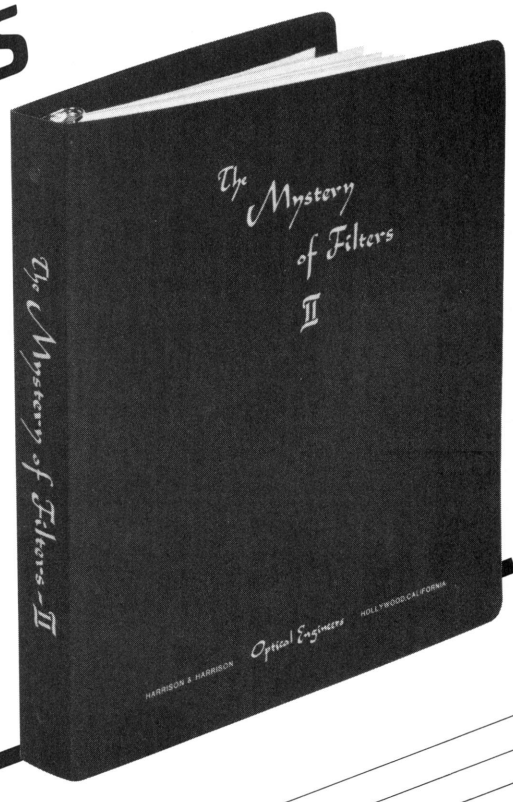

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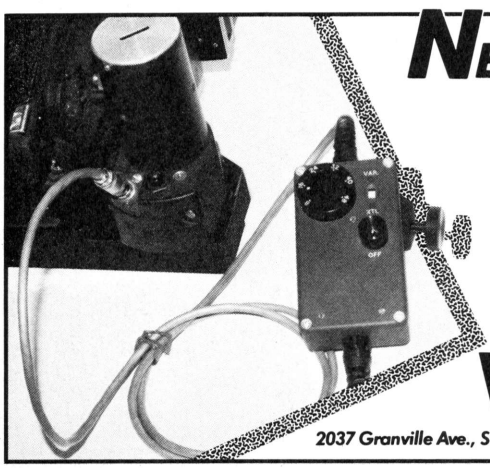

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It was here that I met the seven-foot python that fell to its death, and where I experienced the 'novelty' of bats swooping beneath arms and legs.

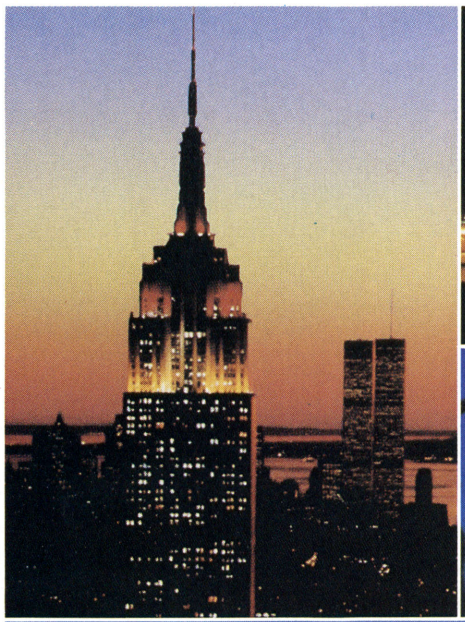
The studios were built in the 50s by the redoubtable Shaw Bros. Run Me Shaw died in March '85; together with brother Run Run and the lesser known Run Jy they established a chain of cinemas that extended from Singapore through Malaya, Java, China and other S.E.Asian territories. Run Run Shaw, Hong Kong based, is the last remaining brother.

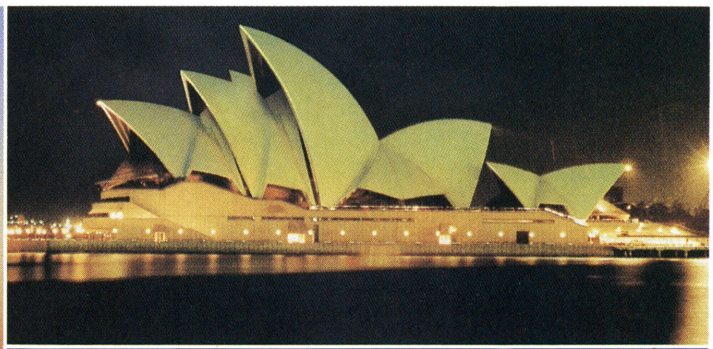
The future of the Malaysian film industry has by no means glowing bright, but, in features, three things work to the advantage and potential of a national cinema: a growing sense of nationalism, the fresh, humorful approach of the Malaysian actor, and a host of excellent natural locales within hours of major population centers. It is possible to drive the entire length of the country in less than a day, and on the way a variety of mountain, savannah, estuarine, beach and jungle country is encountered.

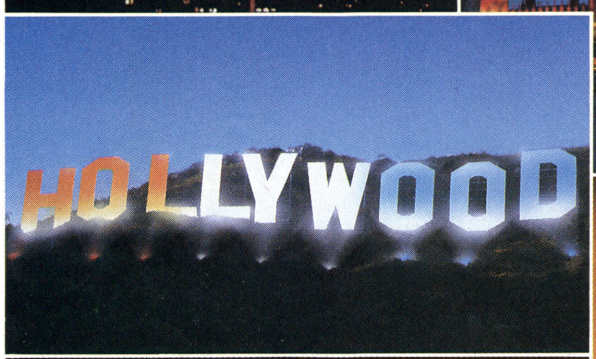
Scenics are plentiful, but what is even more striking to Western eyes is the abundance of man-made religious edifices. Mosques, temples and sacred caves jostle for attention like spoilt children, each one catering to its adherents.

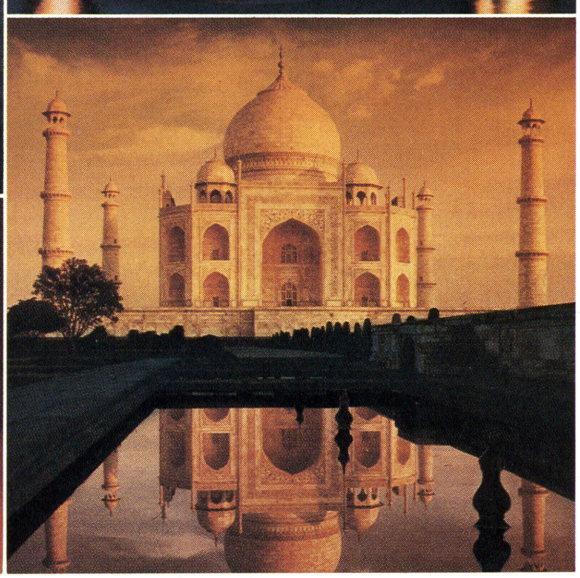
Oddly, these buildings and sights will probably never appear in a Malaysian feature. Utter and total disinterest in other-race practices and beliefs exists; a Malay has no admiration for an ancient Chinese temple – an Indian ignores a venerable mosque – and the Chinese? They're too busy going Christian to look backwards! △

Barrie Smith has been a commercial and documentary director for 30 years based in Sydney, Australia.









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The Look of *The Color Purple*

by Al Harrell

Steven Spielberg, Kathleen Kennedy and Frank Marshall, producers
Steven Spielberg, director
Allen Daviau, ASC, director of photography

It isn't very often that a great book is successfully translated into a film. Too often the author's intent and sense of storytelling is subverted in the translation, either because the filmmaker couldn't find the cinematic diction and technique to match the literary diction and technique, or because the filmmaker bends the story to whatever the current Hollywood whim dictates.

If the book being translated has the substructure of poetry – a sort of elusiveness that sets off emotional and intellectual depth charges in the readers consciousness, then the task of making the film as a translation is compounded.

So, when Allen Daviau was assigned to photograph Menno Meyje's adaptation of Alice Walker's Pulitzer prize winning book, *The Color Purple*, he and the film's director, Steven Spielberg were going to test their skills not only as movie makers, but also as storytellers. They were testing themselves minus the technological safety net of special effects that Spielberg has employed for over a decade.

Early on Daviau realized that, "So much of this film is a piece of story telling; and you have an enormous story to tell. The photography had to serve the clarity of the storytelling first. This ranks first along with the delineation of these characters that you're going to live with for over thirty years of the story."

In the 30 years that both book and movie span, Walker tells the story of Celie, a black girl who grows into a woman who discovers, not only her sexuality, but also her own inherent strength of character through her involvement with Shug Avery, a blues singer. This odyssey of self discovery is charted first in a series of childlike letters to God, that contain a spare, aching sense of poetry; then in a series of quietly raging letters to the sister that she was separated from, when she's "given" in marriage to the haunted and embittered Mr._____. Mr._____ loves Shug Avery, but is forced to take a "decent" woman as his wife by his tyrannical father.

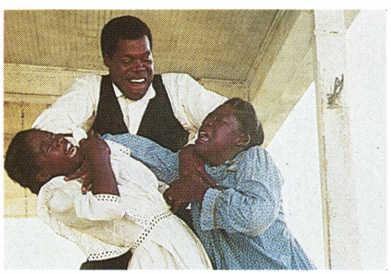
Author Alice Walker reads voice over for young Celie (Desreta Jackson) in the funeral scene.
Below – ***Production designer Riva rides out late August snow storm.***

The letters also chronicle, as does the film, the wary, but mutual, stirrings of respect that both Celie and Mr._____ begin to realize in each other. Celie is played by humorist and actress Whoopi Goldberg and Danny Glover plays Mr._____.

As in all Spielberg films, the quality of light is used both to define environment in the story and to sculpt character. Daviau and Spielberg like to use light almost as an actor, allowing it to shape a scene almost as much as the actors in the scene.

Production designer Michael Riva notes that, "Allen and I scouted locations with an eye toward a certain quality of light. Steven wanted to shoot in the morning and at "magic hour" outside, and go inside at the other times of day."

In North Carolina, location manager Kokayi Ampah found a farm that had the light quality Daviau and Spielberg were



Young Celie and Nettie (Akosua Busia) following their mother's coffin. Below – Mr. ____ (Danny Glover) pulling Nettie from Celie before sending her away.

looking for, as well as encompassing the geography for the environment Riva, Daviau, and Spielberg had agreed on in production meetings. The farm, outside the town of Wadesboro, would be transformed into a 1920's farm, and aged, as Michael Riva points out, "to give the farm and the house a sense of character over the 30 year period of the movie."

In terms of the quality of light the location presented, Daviau says, "I, quite frankly, not being experienced with shooting in North Carolina, had envisioned the light to be somewhat stark with a harsher quality to it since we were shooting in July and August."

However, the light wasn't always stark and harsh. The air was often moist and tended to soften the light. This was due to the higher than usual number of thunderstorms and overcast days in the region.

The major location secured, the $12 million dollar production could now begin on the soundstage work, scheduled for three weeks on the Universal lot. In the meantime, Daviau had spent the days on the farm location going over with Riva what Spielberg had thought would be the most effective angles, how roads would run from one area to another, how buildings would tie one to the other. Now, Daviau would have to apply the same exacting attention to environmental details on the interiors built on the soundstage.

Daviau likes to get in early on the preproduction phase of the movie he is shooting and get involved in those details. "Something I've been able to do at Amblin Productions that I think should be done everywhere, is become involved at the very beginning of a movie; to have the week or ten days, when the production designs are being formulated, when the locations are being scouted, when all these opinions are being given that will decide the look of the film."

Daviau stresses that, "next to the director, my closest relationship on the film is with the production designer." In terms of lighting and camera, he notes that the relationship with the production designer can give rise to suggestions of the designer "that will effect something vital in your thinking of the film."

Riva's "jook joint" set on the Universal soundstage was the most elaborate. He had built an authentic juke joint, a rural nightclub, of the early 20's. In terms of lighting, and overall sense of the movie, the sequences shot on this set were very important. They would be the first scenes photographed on the schedule.

"I don't think Michael Riva ever claimed it was going to be an easy set," Daviau says of the "jook joint," which was one of the many sets on the stage including the farm house interiors.

Two scenes involving the juke joint were shot on the set, which was congested and humid, the humidity sometimes causing condensation to form on the lens. The major scene in the "jook joint" takes place at sunset, then fades into evening on a summer's night. It is the scene of the character Shug Avery returning to sing, and every major character is in the scene.

"On the soundstage," Daviau says, "the set was designed without windows. So half of the "jook joint" was a screened porch area. We had a lot of space, including slots in the roof boards to have beams of light coming in. So, we had the motivation of the setting sun pouring through one end of the juke joint, and the other end had no windows and was as dark as night time and lit only by oil lanterns.

"Knowing that these lanterns would supply the motivating sources in many areas, my gaffer, Norm Harris, had these lanterns 'gimmicked' to provide a certain amount of specific area lighting."

"Bruton Peterson, one of his electricians, built some gadget lights – high intensity halogen globes – that would go on the back of the lanterns. We could gel for color and control their intensity with a dimmer. By placing these gadget lights *outside* the lanterns, we were able to keep a real kerosene flame burning *inside* the lanterns."

When moving the camera, either on dolly tracks or with the steadicam rig, care had to be taken to avoid seeing the gadget lights in a shot. So, Coca Cola bottles and whiskey bottles were strategically placed to mask the gadget lights during these intricate camera moves that are a signature of Spielberg's work.

Since the gadget lights were lighting specific areas, they didn't cover all the lighting needs. So, advantage was taken of the the beams and rafters and support posts on the set. They became places to hide what Norm Harris calls "gator lights." These are small, very light weight, R-40 mushroom globe lamps, that can be fitted with gels and diffusion and controlled on dimmers.

Most of the lighting for the juke joint scene used the "gator lights" to "extend" the lanterns, though conventional light-

ing units were used, particularly to light the cyc and create the sun shafts streaming through the rafters.

"Another factor limiting the use of 'normal' units in the 'jook joint'," Daviau says, "was the presence of a real ceiling that was often visible in shots where Shug Avery's fans were sitting in the rafters, their dangling feet carrying the lens down to the frantic action on the stage and dance floor."

The addition of filtration – a mild superfrost – "added to the scene a certain shimmer," Daviau says, and created a palpable sense of the thickly humid atmosphere.

A cameraman often talks about the discovery of a lighting style that works for a person or place. Daviau uses the example of the Celie character, in this humid, frentic "jook joint" scene as an illustration of that discovery process.

"We have this tiny, scared woman, who has barely been off her farm in over a decade, yet there she is in a nightclub, a 'jook joint,' seeing a life she didn't know existed, as a church going woman of that time," Daviau says. "Here she was, almost hiding, in this marvelous old hat that Aggie Rogers, the costume designer got her, as all the action of the 'jook joint' happens around her.

"There was a quality to her, as she sat with her Coca Cola, the kerosene lantern on the table beside her. We hid one of Norm Harris' tiny gadget lights on the table, separate from the lantern, and I used this as her key light.

"This light worked so well for her. It was actually sitting on the table, so it motivates perfectly, in terms of direction; while it worked under the hat as a fairly sharp sculpting light.

"This shot is when we first realized the magic of Whoopi Goldberg's eyes," Daviau says, the emotions that this scene generated is readily recalled in his eyes. "It was one of those wonderful moments, when you're working on a

Shug (Margaret Avery) wows the "juke joint" with her kind of blues.
Center – ***Shug and Mr. ____ embrace after her rendition of "Miss Celie's Blues." Note the "gadget" light that aids the lantern.***
Below – ***Celie (Whoopi Goldberg) listens to Shug sing her song. All of these photos are from the first sequence filmed by Daviau.***

Sophia (Oprah Winfrey) is released from prison.
Below – *Sophia's first visit with her children since prison.*

movie and you realize something special is really happening. You feel that you've just seen a character *live* on screen and you really know where the movie is going.

"Even though it might've been done for logistical reasons, it was a stroke of real genius by Steven to choose to start in the 'jook joint.' I think he knew in his heart that a lot of things would come together in this scene. It was one of those magic decisions that sets the tone for the film in all aspects."

Within this scene, Daviau had run into some unique photographic problems that occur when shooting a film with basically an all black cast.

"One of the things Michael Riva and I dealt with early on was having the set interiors and set decorations darker than normal," Daviau says, his reasoning illustrating a seeming paradox when dealing with black faces on screen. "It is easier to deal with dark faces against a mid-tone or darker background than it is against a light background. The lighting on the faces can be much more subtle, and it is an awful lot easier to keep control of your walls, even when using large lighting sources.

"It is the face that you're trying to keep in the foreground, so you don't want clothes or walls or set decorations competing with the face."

Both Michael Riva and set decorator Linda DeScenna took this photographic consideration into the design and fabric of the sets and costumes, as did costume designer Aggie Rogers in her costuming concepts. However, there were times when a period authenticity had to be maintained, so that neither set nor costume could be "teched down," a term Daviau uses when mid-tones or dark colors and textures are used in set decoration and costuming in order to photographically complement the black movie actor.

According to Daviau, on *The Color Purple,* "Teching down, or subtly darkening certain scene elements by means other than lighting controls, was a very important area of cooperation with Michael Riva and all his departments. Normally I pride myself on being able to handle a vast range of set, costume, and decor brightness. But when we were striving to keep black faces the primary point of focus for the audience, it was vital not to have the background elements compete with them. And, since Steven often wants complete masters of very mobile actors filmed with very wide angle lenses, traditional lighting control via flagging or scrimming is often just not possible. So, to twist John Alton's phrase, we were forced to light with paint rather than paint with light."

From this "teching down" consideration, Daviau was able to formulate some specific ideas about lighting dark faces. These ideas involved coordination with make up man Ken Chase, since not only did Chase have to deal with enhancing the actors' normal look, but also with aging these actors over a thirty year period.

"Ken Chase likes a natural look and doesn't like people overly 'patted down.' Particularly in *The Color Purple* we wanted the natural reflectivity of the skin to help the faces come out at you without overly lighting them," Daviau says.

In commenting on how the aging make up worked for the photography, Daviau has special praise for Chase's work. "To keep the skin from going dead by maintaining the reflectivity of their normal skin was quite a task."

Skin reflectivity often determined how the actors were lit. Pigmentation and reflectivity don't always go hand and hand. Often, though an actor may have been extremely dark, the actor was actually relatively easy to photograph because the natural oils in the skin reflected the light.

With the bulk of the interiors shot in the three weeks on

the Universal sound stages, production moved to the North Carolina location for eight weeks.

Six weeks had passed since Daviau and Riva had walked around the farm discussing the look of the film. In that six week period, greensman Danny Ondrejko had turned the farm into the landscape needed for the picture – fields of tobacco, pearl millet and sunflowers swayed in the summer breeze. Riva and his crew had built the "jook joint," Harpo's house, and had bought a church that had gone up for sale by its congregation, and transported it onto one of the open fields in view of the farm houses.

Daviau was using two cameras and two camera crews for the location work. The "A" camera crew, with operator Norm Langley, 1st Assistant Todd Henry and 2nd Assistant Joe Stanton, would be filming the primary scenes. The "B" camera crew, with operator Eric Engler, first assistant Reggie Newkirk, and second assistant Bobby Samuels, would supplement the "A" camera, as well as stand by in a documentary like readiness in order to photograph sudden changes in light and weather that could be cut into the film's montage sequences that set up environment.

Both camera crews used Panaflex Golds with the rotating viewfinder, and Daviau used 5294 and 5247 for the exteriors, rating the 94 at ASA 250 for tungsten and ASA 200 for daylight. The 47 was rated at ASA 64. Both camera crews had to be extremely flexible because of the vagaries of scheduling and weather. Often as the "A" camera would be setting up for a scene and a sudden storm would arise, the "B" camera team would take advantage of the approaching storm and film it for a later sequence.

The first time we see the character Shug is a good example of how the two camera system worked. She arrives on the farm just as a storm is gathering in the distance. There is a montage of shots showing Celie on the porch waiting for Mr._____'s return; a nervously quick series of shots of the animals reacting to the approaching storm, and shots of the darkening skies.

Gaffer Norm Harris, Daviau, cable man Bob Harris, operator Norm Langley and assistant Joe Staton prepare to shoot the arrival of Shug.

The sequence is a combination of footage. It is footage of the scene staged for the "A" camera and footage shot by both cameras, in that documentary-like way of catching the photographically interesting light or weather change, and in some cases shots of a darkening sky where grads were used to emphasize the storm quality of the sky. However, there are a number of shots that are genuinely afternoon thunderstorms.

"In fact, "Daviau says, "In the Shug arrival scene, where Celie is standing on the porch watching, we have real bolts of lighting. A bolt of lightning hit center frame. Steve said, at the time, that everyone is going to think ILM put in the lightning bolt."

Regardless of wheather or quality of light, there was still one other factor that was of major consideration on the location. It was a consideration that dictated the shooting schedule: the SAG regulations.

"These may sound like boring things that shouldn't have anything to do with photography, but often times they're the really pertinent things that determine what time of the day a scene is shot," Daviau says.

He adds that, "Just because it was summer with longer hours of light, didn't mean that certain guild restrictions were relaxed. If an actor worked into the evening, to take advantage of a beautiful sunset; it meant the actor couldn't report to work until late the next day, unless the company pays for the expense of giving the actor a 'forced call.'

"This means that the director and cinematographer are forced to choose between morning and evening 'beauty' light on a fairly consistent basis in order to keep the actors on a sensible schedule during the longer summer days.

"In the case of *The Color Purple*, the afternoon into evening phase on the farm proved to be most useful. Many of the scenes were planned around the low light

in the fields and yards," Daviau continues.

"Our editor, Michael Kahn, has certainly chosen, with an eye to continuity, from what actually was many different afternoons. However, all of us will be haunted by morning mists, ground fogs, and sparkling, dewy mornings that were never filmed."

This moist air quality, regardless of the angle of the sun, helped to soften the light. What Daviau calls "light fronts" were also useful. These fronts created a veil of light haze that added in the scenes of mid-winter in the movie, even though these scenes were filmed in August.

For the winter scenes, Michael Riva and his people defoliated the trees, as well as created snow. "We used little epsom salts for the snow," Riva says, "There was another material like flux, that was bio-degradable, that we used for the snow. Special blowers were rigged to blow the snow on the ground and in the streets of the town location."

Besides snow, Riva also imported tons of red clay-like earth and spread it out on the streets to create the Georgia red clay. This red clay colored the way scenes were played, because it reflected back on the actors, highlighting their skin tones and separating them from the background.

For the location scenes in town, Daviau subscribed to the "world of two suns theory." This theory of lighting allows the cinematographer *and* the audience visual continuity for scenes that start shooting in morning light and finish at sunset as the light is running out. This theory permits the cameraman to shoot in backlight as much as possible, because, "it gives smoother continuity for the audience, than going from back light to front light," according to Daviau.

How to use light and the kind of light to use, in order to help shape a scene, was constantly examined in telling the story of the characters, as was creating a sense of inhabited environment for the characters.

"Steven Spielberg is always concerned about the audience understanding the geography – whether it be this entire farm or what's happening inside a single room. He never wants anybody to be confused as to where they are," Daviau says. "Early on he likes to tie together things; thus he has shots designed to show how places relate to each other.

"This genuine sense of environment and your orientation in this environment is established very early, so that as the story progresses and the editing style becomes more elliptical, with montage-like transitions occurring between and during scenes, you can't be confused as to where you are."

This sense of place had to be acute, because the camera was constantly moving about and exploring both the environment and the characters. The environment, in effect, is as much of a character as the actors. According to Riva, "The house had to undergo thirty years of history; and specific care was given to make the house have a sense of character."

Because of the extensive camera movement, key grip Gene Kearney and dolly grip Don Hartley had to be ready to track hundreds of feet on short notice. Kearney, who has worked on a lot of films, says *The Color Purple* is probably a record holder for the number of feet tracked combining dolly and crane moves.

Even though Daviau was especially conscious of his lighting within the framework of the constantly prowling and examining dolly and crane moves, he admits that, "when you're dealing with real exterior light, you're going to have to rely on your timing in the laboratory."

As far as the use of coral filters for color correction, he says,"I prefer to add color in the lab, working on the theory that it is easier to warm up an image than to cool it off." Though Daviau did use an 85 filter, again his rationale is based solely on what occurs in the timing. "I like the positioning on the printing light scale that the 85 gives me."

This strict consideration of what the lab work on a film contributes underscores Daviau's position that, "When a cinematographer is working 3000 miles from his lab and won't see the dailies for one or two days, the telephone communication between the cinematographer and his lab contacts is absolutely vital. In this case the lab was Deluxe and Michael Crane or Terry Claborn were available to assure me all was well or to alert me if there was a problem.

"*The Color Purple* was a picture free of techno-terrors, as we unfondly call them. Also, Jim-Schurmann, the color timer of the final prints, was able to stop in on dailies occasionally and his input was always valuable.

"I tend to agree with something Ansel Adams said: 'The negative is the score and the print is the performance,' " Daviau points out.

Achieving that performance, – particularly under the unusual circumstances of creating the score, with Spielberg eschewing the use of story boards and allowing the acting to shape a scene, the constraints of time and weather, the fact that no one considers this translation a commercial venture of the scope of previous Spielberg films, and the very act of translating what is essentially prose poetry into visual poetry – would be a major photographic accomplishment.

But then Daviau and Spielberg are fully aware of the capabilities of that single instrument – light – and what it contributes to the score. And regardless of how the film performs, critically or commercially, it is a ground breaking film for a number of reasons. Allen Daviau's work in the film's translation of the literate into the cinematic has to be considered one of those reasons. △

(Al Harrell is a Los Angeles freelance writer.)

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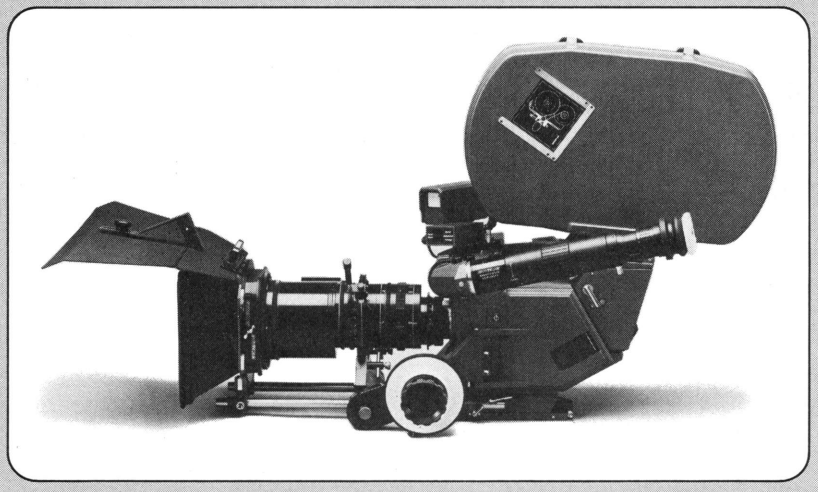

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Spielberg Makes 'All Too Human' Story

by George Turner

Amblin Entertainment is an empire within an empire headquartered on the backlot at Universal City Studio in a large, handsomely landscaped compound designed after the pueblo at Taos, New Mexico. It has its own gate guards, kitchen, game room, courtyard, and attractive offices. At the heart of this highly efficient organization is the founder and guiding hand of Amblin, Steven Spielberg.

Spielberg became 38 years old last December 18. The fact is remarkable in that in the years since he made his first film with actors and a story at the age of 12, he has produced and/or directed and taken a hand in the writing of a string of motion pictures that are anything but ordinary. Some of the highlights: *Jaws*, made 11 years ago, which for years held the all-time boxoffice record; *Close Encounters of the Third Kind, Raiders of the Lost Ark, Poltergeist, E.T.: the Extra-Terrestrial, Indiana Jones and the Temple of Doom, Gremlins, Back to the Future.*

These and other Spielberg productions have emphasized popular *audience* themes: adventure, romance, fantasy, comedy, terror and nostalgic charm. In *The Color Purple*, which was in the throes of post-production in late November when he discussed its making with *American* Cinematographer, Spielberg deals with very real issues in a penetrating, realistic manner. It is based on a Pulitzer prize winning novel by Alice Walker as told through "letters to God" written by a black woman in the south, relating her

experiences from adolescence to middle age. It was not an easy story to adapt for the screen.

"It took about eight months for us to adapt the book honestly without losing the essence of the book," Spielberg recalled. "It was the longest time I've ever worked with a writer on a screenplay. But it was also the most rewarding. When we finally did get a screenplay it was after months of collaboration and trial-and-error, of crying into our cups of tea and coffee and slapping each other on the backs thinking we had done something really good, then discovering that the next scene wasn't working and having to go back and rewrite the scene that just the day before we thought was a masterpiece, which it no longer was in the light of day. It was a really interesting process.

"I was very busy producing at the time – producing *Goonies* and *Back to the Future* and working on the script with Chris Columbus and Barry Levinson of *Young Sherlock Holmes*. And so *Color Purple* was almost a hobby project. I didn't really think I was going to direct the movie until much later into the development of the second draft screenplay. To me it was a wonderful diversion from all the Saturday matinee kidflicks I was executive producing last summer. With open arms and great hosannas I would sit with Menno Meyjes, the writer, and we'd spend a lot of time dealing with adult truths. Then we'd finish something and I'd go back and put on my waders and go into five feet of water on the *Goonies* set and shoot an insert for Dick Donner. It was quite a schizophrenic winter for me."

Although the novel did not lend itself to easy conversion to pictures and sound, Spielberg was able to turn its unusual narrative style to his advantage.

"When I read the book I was convinced immediately that Celie must narrate her own story through her letters to God, and that was the first choice I made even before deciding to commit to direct the movie," Spielberg explained. "I said that the letters will be a very strong narrative line throughout. That made things very easy because her growth is contained in her performance and the reflection of her changing soul, but it is also contained in her attitude that is heard continuously in the voice-over narration. The movie is also annotated with dates and seasons – that's all, never locations, just 'Summer of 1909' or 'Fall of 1916' or 'Spring of 1937' – just enough to let the audience know. And, of course, the characters age through character makeups and age choices that we worked out with the members of the cast.

"I didn't allow any of my own inadequacies as a male, Jewish director from Hollywood to interfere with what I thought was a story that I could tell quite subjectively and yet at the same time be objective in my overview of what was happening," he added. "Sitting on top of the story and looking at it in its entire span of time, I determined early on that this wasn't just a story about race or color or intellect or station in society, it is really a story about humanity. The drawbacks and shortcomings and joys of these people could have happened – and, in fact, *have* happened – to all of us. So I never felt that I was ill-equipped to handle the specificity of the story as being what people might assume is an all-black experience, because I think it's an all-human experience – often all *too* human – and I wouldn't have accepted the job of directing it if I didn't feel that way.

Nettie's letters come to life.* Below – *The "African" village was actually in Newhall, California.* Opposite page – *Shug gives Celie a letter from Nettie – her first in 28 years.

Celie finds her voice and tells Mr. ____ more than he wants to hear. **Below –** *Celie leaves with Shug and Grady (Bennett Guillory) for a new life in Memphis.*

"The cast is black except for Miss Millie and the Mayor, the mailman and the store clerk. In the town scenes there are white extras. But this is not a movie about black and white relations, it's a movie about a family struggling to survive their own lots in life. Each character has a different need to fulfill."

It was crucial that the times depicted in the story be faithfully maintained in the visuals without resort to the usual chronicling of world events.

"The movie begins in 1909 and ends in 1943," Spielberg said. "I thought it was a very important time period. While the world was changing all around these people, they continued with their personal emotional struggles. The world around them makes little difference to the outcome of their stories. I found that fascinating. I didn't reflect the world except very, very subtly – through the music changes, for example. They go from the blues to the big band, there's a wind-up Victrola at the beginning of the film and toward the end there's an actual juke box. The changes are all contained in the production design by Michael Riva. This was one of Mike's best contributions, very subtly making you feel that times are changing but not overwhelming the viewer with that information, because that information is non-relevant to what the story is about."

Riva was also instrumental in selecting the location where most of the picture was filmed, as Spielberg noted:

"I sent Mike out to five states – Mississippi, Georgia, Alabama, North Carolina and Tennessee. He came back with a massive number of stills that were arranged in a kind of diorama of visual opportunities and choices. I was able to get a great idea based on these stills and videos of what the different areas looked like. I struggled with the choice. I took these large pieces of poster board with all the snapshots glued together home and meditated over them for approximately a week and, finally, made the decision to shoot in North Carolina. Once that decision was made I got an airplane and raced down there to make sure that the pictures weren't deceiving me. When I got there, I was flabbergasted at how beautiful everything was. That was the first step in an overall design – getting a home to shoot around.

"The entire motion picture occurs during about 37 years in the lives of middle class black farmers in Georgia. There was *truth* in Georgia; it resonated from the book and Alice Walker's experiences in writing about these people, but it just wasn't as pretty as the farm we found in North Carolina, so we shot North Carolina and called it Georgia."

Production centered on a farm in Anson County, near Mason, which was leased for six months – three for construction and three for shooting. It was owned by the Huntley family, who

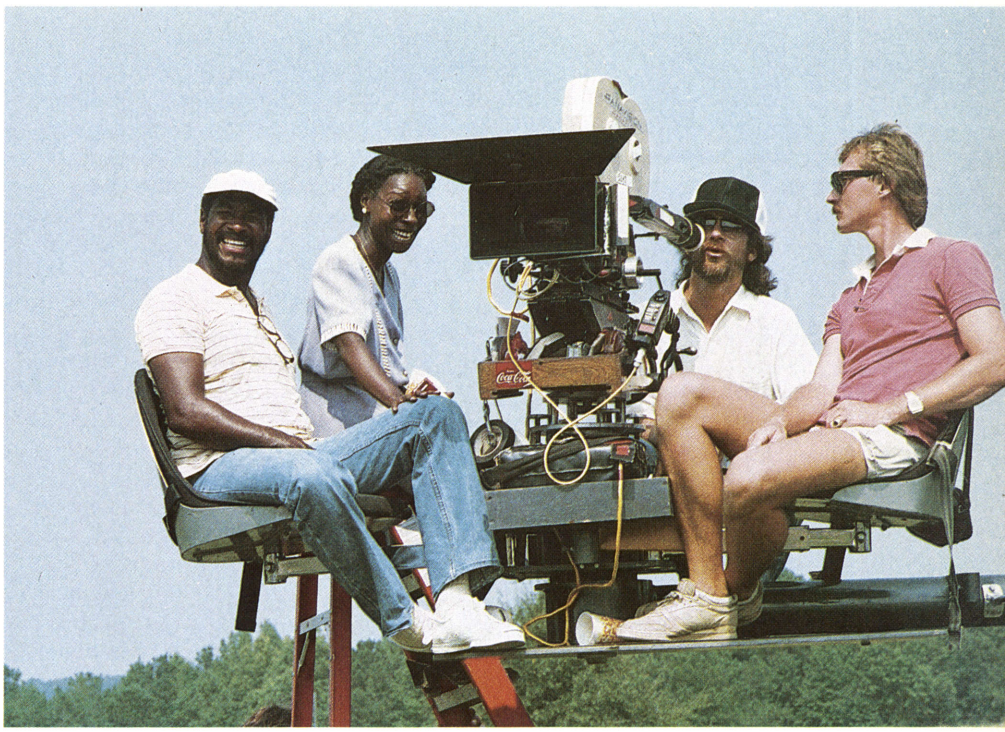
cooperated wholeheartedly in facilitating production.

"On this farm there existed some beautiful landscapes, a 140-year-old farm house, a couple of ponds, and beautiful meadows surrounded by large stands of trees," Spielberg enthused. "I remember choosing it not so much because of the existing structures on the farmland but just because of the beautiful surroundings, especially the topographical levels. It's a disaster for cinematographers, art directors and filmmakers to shoot on the flats because there's no place to put the camera, except up on a crane, to see farther than your thumb at the end of your hand. But this piece of property had so many different cinematic vantage points. Fortunately, the house was on the highest ground, so you can see forever, That was very important because I wanted this to be about a big land."

As always where location photography is concerned, weather was an important factor. Spielberg explained:

"For a small movie it was a big production, because cramming 30-odd years of living into a two-and-a-half hour film takes a lot of time, and what we lacked in production value (such as some of my other pictures have contained) we made up for in character richness and beautiful weather conditions, which we were very fortunate to encounter. I think it's the most fortunate picture I ever made as to coinciding perfectly with the weather. When we wanted rain, it rained; when we wanted it sunny, it was sunny. When we had to have extreme backlight for late day shots we had it and the sun stayed right where we needed it until Allen (Daviau) and I were finished, and then it'd drop suddenly like a basketball behind the horizon. We felt that the weather was with us and that somebody up there liked us.

"I used to watch the weather every night. We were down there where the big weather sweep *always* showed thunderstorm activity. But it worked for us because we always got beautiful skies right after a rain squall. We tried to time our favorite moments of shooting for right after the rain showers. On the occasions when the weather would not cooperate, we magnified the disappointment and it became a tragedy. Next day we'd go back and the weather would present its case and we'd shoot it as it was presented to us."



Langley, Goldberg, Spielberg and Henry check out a rehearsal.

Collaborating closely with the director was the director of photography, Allen Daviau, ASC, for whom Spielberg has the highest praise:

"Allen and I had worked together for the first time on *Amblin,* my student film in 1968. We were friends all during the period but the years passed and in 1981 we began shooting *E.T.* together. Allen was on another project of mine that was postponed for a year and so I asked him if he would consider doing *The Color Purple* instead. When he read the book he became very excited about it. I think he considers it his best work, but it's kind of presumptious of me to say Al has done his best work when he's so young and he has so much more ahead of him to accomplish. Up till now this is, by far, his best photography, and I think by far the best I've every had in a movie.

"I think he'll be a top man because he's an artist but he's not temperamental and he's gracious to people. That's why everybody in the cast loved him – they could all relate to Allen. He is a gentleman who'd go out of his way to make an actor who had a complicated emotional scene to play through, feel that he was not intruding. He'd be careful that if a player had to hit a certain mark, and if the scene was too emotional to rely on the performer hitting that exact mark, Allen would light a little more generally or he'd bring in another unit or two so that just in case the actor missed the mark by a foot or two there was always a unit to rim here or kick there. But at times he saw an opportunity to make a scene gorgeous and he fought for that desire – he'd come over to me and say please beg them, nail their feet to the marks if you have to, but it will be so lovely if they don't move from this spot.

"I could tell when Allen had a passion about something. I had them every day while making this film, so when Allen had a pas-

sion here or there I would immediately succumb to it and do my best to pin the actors down so they wouldn't move too far out of his beautiful lighting arrangements."

Spielberg ordinarily storyboards a picture intricately, much as Alfred Hitchcock was wont to do. *The Color Purple* is a rare exception:

"This is only the second time I didn't storyboard the whole picture. The first time was *E.T.*, because it was an emotional journey. I felt that *The Color Purple* was even more of an emotional journey and I wanted to surprise myself through the process of discovery every day during the making of the movie. I was afraid the storyboards would tie me down to pre-conceived ideas that would no longer be relevant once the cast got together and began performing their hearts out."

Maintaining a sense of true continuity in a film which covers a large span of time and yet could not be shot in exact sequence proved to be a major headache, Spielberg said.

"It was a fast production and it was sort of a hardship to shoot so out of continuity on a movie that is so emotionally about the continuity in the lives of seven characters. So, by shooting out of continuity, and complicated by the fact that four of the seven actors had not acted before in motion pictures, it was very difficult for me to explain to them what had come before that we hadn't shot, and what was about to occur after but which we had shot three days ago. I had to always keep the actors in complete continuity and in total confidence that what they were doing was absolutely the right level and tempo.

"There were a lot of personality changes. I would certainly have desired to do a film like this in continuity, but it was impossible because of money and circumstances. The whole thing cost $15 million – and that's inexpensive for one of my kind of movies – and I was anxious to stick with that. It would have cost a lot more to have started the picture in continuity and shot directly through. Once we got in North Carolina, though, we shot as much in continuity as was naturally possible, taking into consideration weather, climate, hurricanes that hit twice, and the aging of the characters.

"It was an emotionally charged set. Everybody got along great; we were a love company behind the scenes. By the same token, the story at times is very heavy in drama and intensity, and because of that Allen and I took a new approach with the actors. We went from being guidance counselors to psychologists and, sometimes, stretcher bearers when emotions got too hot and heavy. We considered the book as our bible to always refer to when we were in doubt as to what the screenplay said. We always went back to the book to read between the lines to see what Alice's honest intentions were, and that permeated throughout the entire cast. Allen and I were very gentle to everybody. On *E.T.*, we were yelling and screaming all the time, but on this picture we were a lot more mellow. I was never more relaxed while making a picture. We knew we had a wonderful piece of drama and we wanted to get it right, and of course wanting to do something right creates a lot of tension."

The cast of *The Color Purple* is a mixture of performers who have worked in movies, stage actors with little or no motion picture experience, and non-professional actors. Spielberg related that he had worked out a way of dealing with this:

"Working with kids and working with newcomers who haven't acted before are quite the same thing, and I discovered that I would often bring the same techniques to directing some of the older, yet less experienced actors in *The Color Purple* as I did with Drew, Henry and Robert on *E.T.* I never talked down to the kids and I certainly wouldn't talk down to the adults. Quite to the contrary, it has a lot to do with being reasonable and being full of surprises and not trying to over-prepare a performer for a scene. Let the actors who are used to rehearsing and preparing come in and sort of carry the ball, and the other actors who aren't used to that would fall into a kind of improvisational pace with the more organized performances of the others. Somehow the blend was magical. It was nice to see somebody who had acted for more than 20 years, like Adolph Caesar, playing opposite others who hadn't acted at all in a motion picture. Adolph would bring a professionalism to the moment, yet he would create a comparison of a kind of raw beauty in some of the other characters who hadn't the years of work that Adolph has enjoyed."

The first three weeks of work was devoted to interiors shot on stages at Universal City. Other interiors were made on location at the Huntley farm. "The studio interiors primarily were the upstairs of Mister's house and all that was contained therein, the juke joint interiors, and the birthing shed where Celie gives birth to her daughter, Olivia, when she's 14 years old," Spielberg said.

There was also second unit work for the African sequences and insert shots in North Carolina.

"I did most of my own second unit work except in Africa," Spielberg recalled. "I was so busy editing the film to meet our deadlines, which are extraordinarily tight, that I sent Frank Marshall over to Masai country in Kenya, with intricate storyboards that we had done several months before, to shoot four scenes that I thought were essential to the movie. He took our cameraman and assistant director from Africa, Simon Trevor, who also shot second unit for Sydney Pollack for *Out of Africa*. They did a marvelous job. Vincent Winter was our production supervisor there. Also, Frank and cameraman Eric Engler were working occasionally

in North Carolina, picking up an insert here and an insert there, so I was very fortunate to have some of the burden of shooting inserts taken away from me.

"We had a terrific unit. I'm about as happy with the crew of *The Color Purple* as I have been with any crew, whether in the United Kingdom or the United States. The production manager, Gerry Molen, stuck by us and presented me with alternatives when the conditions weren't right to shoot what was planned. He always had the budget in mind, yet never made me feel that I was being a bad boy by shooting a few extra hours at the end of the day – but he was always there to remind me that if we quit early we'd save some money.

"Kathy Kennedy and Frank Marshall really were the line producers of the movie and, both spiritually and as organizers, were able to get me to do this movie on budget and on schedule, which is, in many ways, a minor miracle. Quincy Jones was a fantastic moral supporter all through the process and he was always there to make me feel that I wasn't too white. Quincy got a producing credit, but he was mainly involved in the construction and organization of the musical score and in the moral and spiritual support of the entire cast and crew and myself.

"We had two really good first assistant directors, Pat Kehoe and Richard Wells. Pat had worked on *Poltergeist*, and Wells was actually the trainee on *Sugarland Express*, my first feature. We had a second a. d. who I think is really going places, Victoria Rose, and – my God! – when she says 'QUIET!' the birds stop singing in the next county. Mike Riva did a fine job of production design. I met him on *Goonies* and I had actually suggested to Dick Donner to hire him on the basis of *Buckaroo Banzai* because I loved the art direction although I hadn't known who'd done it.

"The makeup was quite difficult because Ken Chase had to age about 16 people over the course of the production. Since it was not shot in complete continuity, he would only have to age them one day just to have to take it off and de-age them the next. It was quite confusing, but he did a wonderful job of keeping everything in line and he had a wonderful group of assistants. I hired him on the basis of *Back to the Future* – he'd aged all the characters in that."

In one of the few departures from the book, Shug seeks reconciliation with her father during his church service.

Spielberg was enthusiastic about camera operators Norman Langley – who he borrowed from his *Amazing Stories* TV crew – and Eric Engler, who was also second unit d. p. He lavished similar praise upon the sound crew (Willie Burton, mixer, Robert Harris, cable man, and Marvin Lewis, boom man). "They would spend their weekends, without telling me, in the wilds getting wild tracks of frogs, birds, wind through the cornstalks – a lot of

After years of letters, Celie and Nettie are reunited at the film's conclusion.

extra-curricular work to make the movie better." Of script supervisor Ann Rapp, he said, "I'd recommend her to anybody. When I'm not making a movie they can borrow her; I'd hate to lose her on the next thing I direct." As for sound effects expert Richard Anderson, whose work on *Raiders of the Lost Ark* won high praise, Spielberg said he "put together a really sensitive sound design; nothing too obtrusive, but a subtle blend of nature and natural sounds, the sounds of the 1910s going into the 1920s going into the 1930s going into the 1940s. He really found different sounds for each decade."

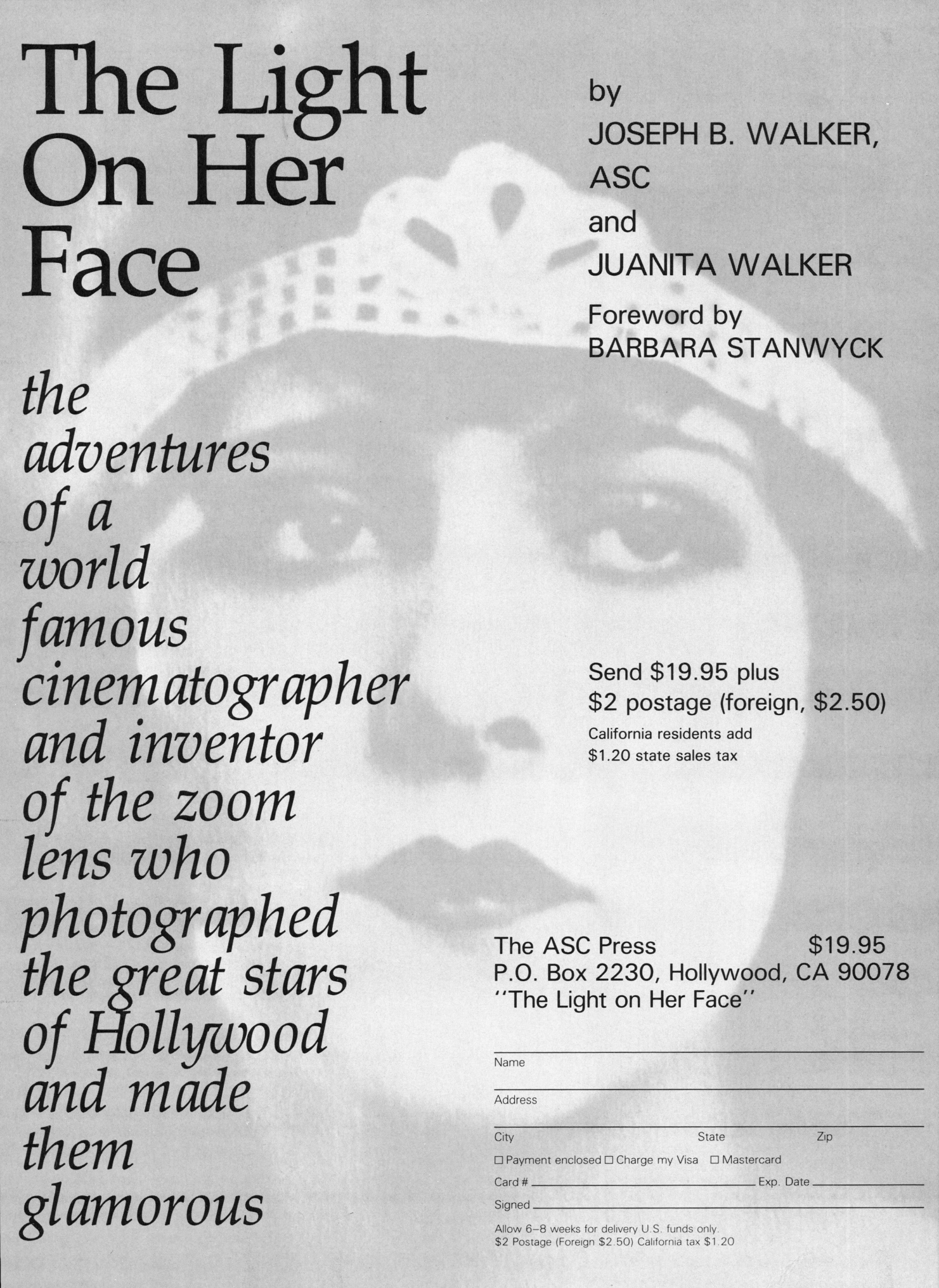
Unlike many of Spielberg's past productions, *The Color Purple* has little dependency upon special effects. "For me it was a real vacation from special effects. There are a few in the picture – essentially smoke, and here and there a door had to open a certain way – but there's nothing to make you call out aloud, 'Look at those effects!' I have to give Matt Sweeney credit – he was our effects supervisor – and Lucinda Straub and Greg Jensen and Bob Stoker, his assistants, for doing a fantastic *invisible* job."

"A lot of the fellows from *E.T.* came along with Allen Daviau and me on this picture, like Ken Kearney, the key grip. We had one of the best gaffers I ever worked with, Norman Harris. He got very involved, creatively, not only in lighting with Allen but also he was very sensitive to the screenplay. He and Allen were a fantastic team to watch working together."

Although Spielberg has produced an unprecedented five Amblin pictures during the past year, he has decided to devote more time to direction in the future.

"I certainly put directing in front of everything – behind my family and in front of producing," he corrected. "It's something I will always do and I will always do better than I produce, I'm sure. Producing is fun; it's very rewarding to produce *Back to the Future* and have it succeed so well, and doing it inspired me to produce two or three other movies. Yet I've cut our producing schedule here back from five films a year to two, so we've cut almost three pictures out of our curriculum each year because it's just too much work. I have the skilled talent, but I don't have the manpower, unfortunately. I've got Kathy, Frank and myself, and Art Repola in post-production and Debra Jelin in the story department, and that's about it. We're a small commando operation.

"It isn't enough to make five films a year and be able to stand behind each one and say, 'Yes, we can defend its failure' or take credit for its success. You can't do it with such a small operation – which is much better for me and my personal life, and my personal sanity, to boot!" △



The Light On Her Face

by
JOSEPH B. WALKER, ASC
and
JUANITA WALKER

Foreword by
BARBARA STANWYCK

the adventures of a world famous cinematographer and inventor of the zoom lens who photographed the great stars of Hollywood and made them glamorous

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Lights, Camera, Emulsions for *Out of Africa*

By Samir Hachem

Kim Jorgensen, executive producer
Produced and directed by Sidney Pollack
David Watkin, BSC, director of Photography

"The chief feature of the landscape, and of your life in it, was the air," wrote Isak Dinesen back in 1937 about Nairobi. "Looking back on a sojourn in the African highlands, you are struck by your feeling of having lived for a time up in the air . . . Up in this high air you breathed easily, drawing in a vital assurance and lightness of heart. In the highlands you woke up in the morning and thought: Here I am, where I ought to be."

Here I am, where I ought to be.

From 1914 to 1931, Isak Dinesen (the Danish Baroness Karen Blixen) lived and managed a coffee plantation in Kenya. She suffered and toiled through those hot years, but she also wrote about them – at night, or even in the mornings, when paperwork and legal documents proved too dull and confusing. She wrote about them and, storyteller that she was, she gathered natives around her and told them stories which she often made up (much to their awe and delight) right there on the spot.

Out of Africa, the chronicle of Dinesen's years in the black continent is a masterpiece and a love poem from a woman to a land which she tells us spoke to her, and sang. While there, its author was married to one man (who at first romanced her, then neglected her, and eventually through his promiscuity, gave her syphilis) and, according to recent biographies, was in love with another. In setting out to make a movie about all this (basing its events on Dinesen's own "Out of Africa" and "Shadows on the Grass," Judith Thurman's very authoratative biography, "Isak Dinesen: Life of a Storyteller," as well as the newly unearthed Errol Trzebinski biography of the man Dinesen loved, Denys Finch Hatton), director Sydney Pollack was determined to keep two main things in mind: That his movie would be as much about the love that bound its heroine to its hero as it would be about the love that its heroine and her land had for one another.

"*Out of Africa* was always for me, in a phrase, paradise. I felt there had to be a romance, in showing nature and the way it affects people," Pollack says. To shoot paradise, he hired cinematographer David Watkin.

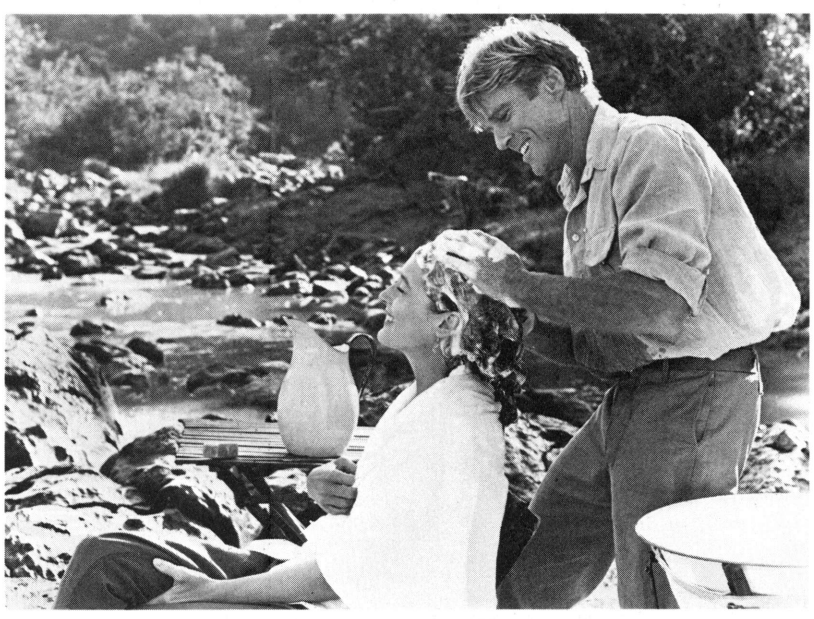
Watkin is a noted British director of photography (*Return to Oz, Chariots of Fire, The Devils, Catch 22, Jesus of Nazareth, Endless Love*) who is opinionated and blunt about his methods and ways, but rather a traditionalist in his approach to the duties of a cameraman. Aside from one stint in Japan (*The Yakuza*) and another in France (*Bobby Deerfield*), Pollack has only made movies in America, with American cinematographers from whom he's gotten used to receiving suggestions about camera moves, choice of angles and other image particulars. Not so with Watkin.

"He wasn't terribly interested in either set-up or choice of lenses. All he wanted to know was what area was going to be in the frame, and then we decided the mood of it, and the style of it, and how we wanted to do it. That was new for me," says Pollack, "because American cinematographers use the set-up as a key into the lighting. David basically lights the set as if it were a very large painting, and then tries to accommodate my needs within it." Often, the director was heard saying to his cinematographer, "Wouldn't be be better for you if . . ." And just as often, the cinematographer was heard replying, "I don't want it to be particularly easy for me."

Watkin says "Films are basically about scenes and acting, and not for the cinematography to shine, and what I'd much rather do is let a director decide how he wants to shoot a scene. It's the way I've always wanted to be, and the way I think most English cameramen are."

Out of this Africa they were embarking to film, Pollack wanted a lush and a romantic sweep that would warm the heart, without spilling over to sentimentality. What he saw there, and wanted translated on the screen, were countless variations on the shades of green and brown which the land produced. So, there was Africa, with all its natural beauty. But the light Africa offered was harsh, and if fell straight down, equatorially, casting ugly shadows on people and their faces. Therefore, aside from an hour before dusk, and an hour after it, sunlight conditions were disastrous as far as the filmmakers were concerned.

"You get values from David Watkin that are uniquely his own," Pollack says in admiration of the man who gave his love story a soft shimmer and a glow.



One of the joys of the wilderness.* Opposite page – *Karen (Meryl Streep) and Denys (Robert Redford).

Karen and Bror (Klaus Maria Brandeur) fowling in Denmark.
Below – ***Karen provides medical attention for the Kikuyu on her farm.***

Without using smoke or gimmicks, "he makes a set look like it's not lit. He's a real painter. He has the ability to make real magic in the most unconventional manner, and often the simplest. It's one thing to use 156 lights, but it's another thing to watch a man hang one light, walk away from it. and have it look gorgeous!"

With Meryl Streep in the role of writer Isak Dinesen, Robert Redford as her English lover, Denys Finch Hatton, and Klaus Maria Branduer as her Swedish husband Baron Bror Blixen, *Out of Africa* was always intended as a big studio crowd-pleasing picture. What this meant was that no matter how authentic to the real events it was inspired by, the script (by Kurt Luedtke) had to stress the love triangle and jungle adventures over its literary and mystical aspects. Similarly, the craftsmanship and working conditions of such an enterprise could not afford to be too experimental, or uncompromising.

But David Watkin was up for trying some new things, some new and unconventional things, which might have driven a less secure director than Pollack to have a couple of nervous breakdowns.

Because he is a big fan of the super speed Zeiss lenses, Watkin rejected Panavision cameras (which aren't designed to fit them) in favor of the very noisy Arriflexes (which are). He chose the Agfa 320 over Kodak's 5294 as his main film stock. He talked Pollack out of shooting *Out of Africa* wide screen. He lit interiors with lighting rigged *outside* the windows of house sets, and although this was a star vehicle (of sorts), he rarely made special compensations to execute what is commonly referred to as "beauty shots."

"The real problem with the Kodak 5294," says the veteran cinematographer, "is that it has no latitude at all. If you imagine a piano with eight octaves, then imagine somebody disconnecting the bottom two and the top two, you only have the four middle ones. To get the exposure right isn't what's hard. If you have someone brightly lit by a window, and someone in the corner of a room, to get the one in the corner, you lose your highlights. The only thing that's any good is in the middle. At least three quarters of *Out of Africa* is shot on the Agfa 320 (and some of it is on the Kodak 5247, but not very much) which is much better than the 5294. With the Agfa, you've got three octaves back on top of the scale. It's almost impossible to overexpose. It retains highlights, and it's a much softer stock than Kodak. You get 18 different greens, and 20 more half tones. In hard sunlight, where you're practically under the equator, the sunlight looks absolutely ravishingly beautiful. Speed is not the most important thing about a film stock. What's most important is how it looks. And you can't find that out by testing a film stock. It takes a film to try a stock, which is why I get fed up about Kodak

Watkin lit the interiors from outside.
Below – ***Lanterns and candle light were often used as source lights.***

changing their stocks all the time. The 5247 is still a very good stock, and I know exactly what it'll do."

You'd expect that, using both the Agfa 320 and the Kodak 5247 (with its slower ASA), Watkin would employ the fast film for nights and interiors, and keep the slower stock for day exteriors. Guess again. Watkin did the unexpected, doing the exact opposite: he used the Agfa for exteriors and the Kodak for nights and interiors.

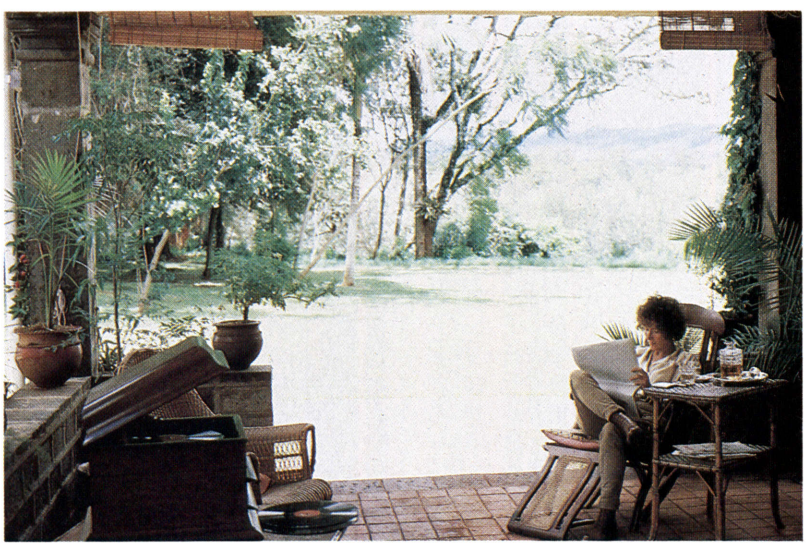
"In theory, the 5247 is 100 ASA and the Agfa is 320 ASA, but Kodak has raised its ASA to 135, and Agfa looks best in full exposure, so you're going to use it at 200, not 320. So, the two stocks are not that far apart in speed – one stop – and I'd rather shoot at 4 than at 5.6. Agfa is much less grainy than the 5294, by the way, and a lot more people are using it (Chris Menges, for example, on *The Mission*). "There's increased contrast, and it's still a softer film," agrees Sydney Pollack. "You're recording the contrast of what is already overcontrasty. What we did was to spread the soft light."

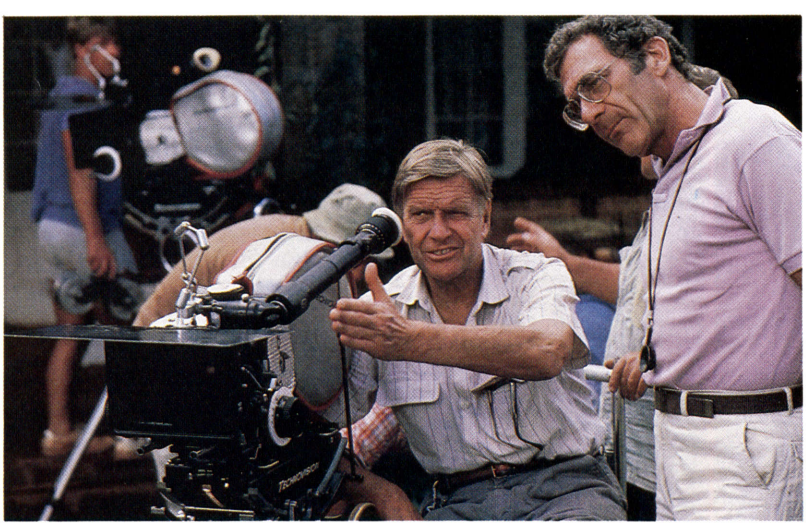
The Agfa 320, however, did not seem to suit the director in low light levels, or in the shade. "We couldn't get real blacks in the interiors, and to get real blacks, we used the Kodak 5247."

But if Pollack and Watkin were in agreement on the how to use and how not to use film stock, they were far from seeing eye to eye when it came to the subject of cameras and lenses. The American director of *Tootsie, They Shoot Horses, Don't They?* and *Three Days of The Condor,* is used to Panavision. He has always used their cameras. He likes them. And they have never given him a problem. Watkin, on the other hand, will not put anything on his cameras except the super speed Zeiss lenses which are made in Germany and can only be mounted on Arri BL's. He swears

by these lenses. To him, they more than justify being deprived of Panavision cameras.

"There isn't any question that Panavision cameras are the best in the world," he says, "but what's the point? The audience doesn't see that. The crew has a nice time, but the audience only sees lenses and stock. I'd rather have a good lens, even if the Arri is a noisy camera. The only thing that you can think of is what appears on the screen." Yet, all the while he was making and, later, as he was editing their joint African-set adventure, sound was very





Crew prepares to film exterior of Karen's farm in Africa. **Center –** ***The real light of equatorial Africa.*** **Below –** ***Cinematographer Watkin (left) and director Pollack.***

much on Sydney Pollack's mind. It was much on his mind, and much on his nerves as well. He swore he would go right back to Panavision lenses and cameras as soon as production on *Out of Africa* was completed.

"David likes the Zeiss lenses. I feel they're vastly overrated. I do not find them superior to other lenses, as David does," says Pollack. About the two blimped and one unblimped Arris they used, he says: "I have never worked under worse conditions. The cameras were ridiculously noisy. I have the worst sound on my tracks now. They broke down. They were all terrible. The viewing system in them isn't anywhere near as bright as it is on the Panavision. The lenses fog up in the humidity, and there's no defogging, no shutter control. They strobe so brightly when you pan vertically, we had to quit panning. They were the source of agony. David is a sharpness freak, though, and he will not put anything in front of the lenses. Why work so hard to create a piece of optics and then stick things in front of it to make it soft! He's right. But no, not on the Zeiss. I've seen lenses as sharp. I sure will go back to Panavision. They're much more reliable," he asserts, adding, with a chuckle, "which doesn't mean they necessarily make better movies!"

Watkin also likes depth of field, and seeing a chance of being deprived of it is what prompted him to convince Pollack against going anamorphic. "And he was right," Pollack concurs. "With 1:85, we have a lot more depth, and the country side looks rich and full, with all its colors and its own personality," Oddly enough, the preceeding year in Kenya was a drought year, but during the year the filmmakers visited it, it was wet and unusually bright in its greens, not yellow. "But it has a golden aura about it, which makes it romantic," says Watkin. Even the interiors, Pollack wanted bathed in a similar orange to golden glow, because

"Number one, it's accurate. Number two, it's more romantic. And I hate blue." This meant that oil and kerosene lamps, as well as candles and fires, had to be recruited to do the job.

"The film's action within its time period starts with oil lamps and ends in electricity. One tries to get a difference, but if a room is lit with a lamp, whatever the source, it's the strongest light in the room. It's the source of light. The only different thing is a candle light. As a rule, one light is better than two. More than two begin to cancel each other out," Watkin says.

It stunned Pollack when he saw Watkin "lighting from the outside," as he puts it. "He sticks a bunch of lights outside and he'll work directly, because the sun is direct, and he'll have HMI's beaming into a white card as fill light. He doesn't light actors in steps, in cross lights. He turns the lights on and walks away. Ninety percent of the cases work, but occasionally it's a problem to the actors – bad shadows here, you see unsmooth skin, whatever. It's a love story! Then he goes to work to fix it. He doesn't like it a lot, but he does it. It's never artificial, though."

Pollack was equally impressed with one of Watkin's own inventions, the Wendy Light, "an enormous light unit with 140 lights on it, mounted high on a 150 ft. crane, so the fall off would be even, much like it is falling from the moon." Watkin designed this lighting accessory while working on Franco Zeffirelli's *Endless Love*. For a nude love scene by the fireplace, the cinematographer knocked out a wall in the back of the fireplace so the house had a hole in it. Six feet away from the outside, he brought out a tunnel to reach this enormous 1100 amp lamp, the Wendy Light. This produces an intense backlight which requires only a few white reflectors on its sides to supply fill light, and which looks great on the 9247 stock, shooting at a 12.5 stop.

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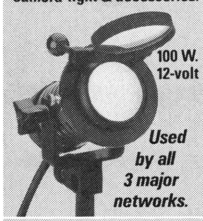

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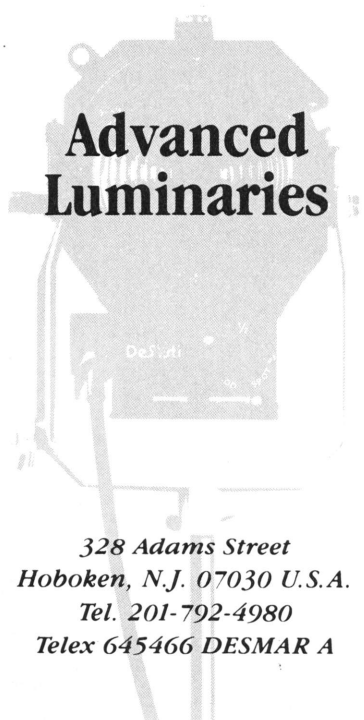

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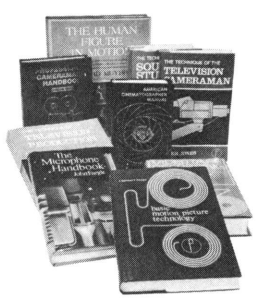

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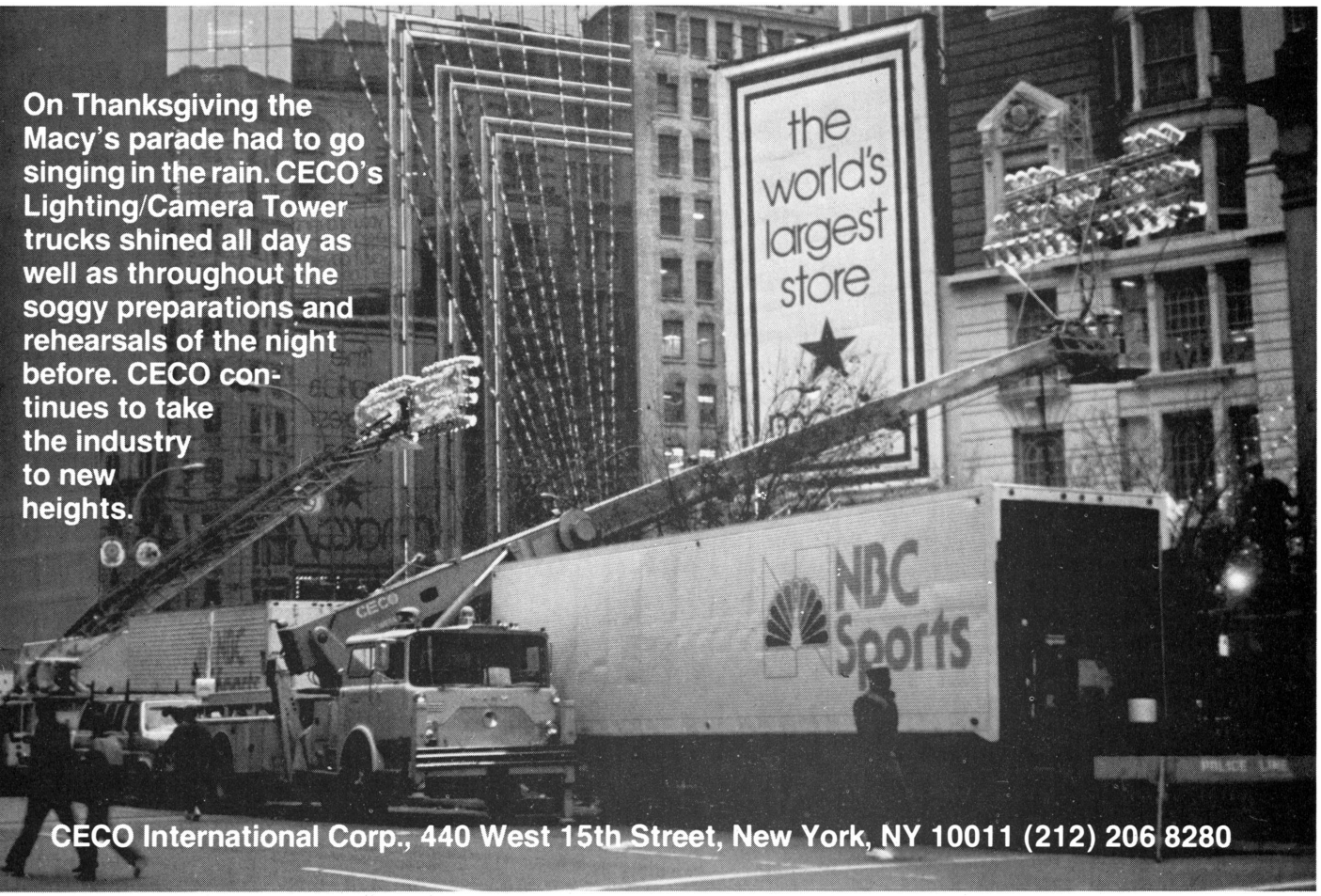
For *Out of Africa's* own fire scenes, David Watkin used a sheet of brass, which he hammered a little, and had a whole lot of small lights reflecting off it a mixed orange flow of glow. He contends that aside from using a small light here or there to reinforce their darker skin tones, he made absolutely no other lighting compensations in filming black and white actors together in the same frame. ("I did *Mahogany,*" he whispers, "and in that case I did nothing at all. You have to be careful not to underexpose it. You mustn't have a thin negative.")

"Part of my problem to keep this film from becoming a travelogue," says Sydney Pollack, "was to make sure each shot was justified, not just post cards. I don't do a lot of cutaways, for instance. There's a lyrical style one can take, but it seems too obvious. I took a crane with me. But I didn't really use it that much. I wanted to keep away from contemporary movement, or anything that would impose on it. The film is sedate, and it has a feminine air to it – I even tried to see Robert Redford, and to film him, the way she, Meryl, saw him. It's the story of a woman and two men, and this vast powerful land."

You come to a location, and you find the light is a certain way, the earth and the trees are a certain color. You either take what it gives you, or you try to hide it. Real artists take what they find, and out of that they make art; More accurately, they let art happen. "The thing that's interesting about it," says David Watkin, "is that films tend to make themselves." △

(Samir Hachem is a Los Angeles free-lance writer.)



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Where Are the Children?—a Dark Tale

Produced by Zev Braun
Directed by Bruce Malmuth
Photographed by Larry Pizer

by Ric Gentry

When director Bruce Malmuth first scouted locations in Cape Cod with the Massachusetts Film Board, he made a decision that was contrary to the script but of initial and lasting benefit to the scheduling of the production of *Where Are the Children?*

"There were two houses required by the film," Malmuth says. "One is where Parrish, the antagonist, takes the two children after he's abducted them. The other is where the family lives. Approximately 23 of the 38 days of shooting would take place at these locations. Originally they were situated at a considerable distance apart, with one on the ocean. There were many attractive, seductive features about the places that I saw, but it seemed to me that it would be very prudent to keep the homes in close proximity."

As luck would have it, Malmuth found homes that opposed each other across a rugged Cape Cod inlet on Amarita Island near Falmouth. "One was this strange Gothic oddity," he says, "and across from it were these other homes. It was very fortunate, because from there I was able to construct a shooting schedule that would provide a number of options that I would not have had otherwise."

Scheduling options were necessary—indeed, mandatory—for at least two ostensible reasons. First, *Where Are the Children?* proceeds over a continuous 16–20 hour time frame, half of it at night, and 85% of it in an all but unprecedented increasing rainstorm. "I had it in my mind that the rain had to parallel the drama of the picture," Malmuth says, "that the sky would become gray and menacing, and then the rain would start and build as the drama builds, so the climax would result in this crescendo, this tumult and explosion of life. So the rain had to be orchestrated in terms of de-

sign, in terms of a very vigorous visual evolution."

Secondly, and enormously complicating Malmuth's "visual evolution," were the actual meteorological conditions endemic to Cape Cod. "We were scheduled to start shooting on November first," he says. "The weather at that time of year is extremely volatile. You can wake up to a beautiful sunrise and then, literally, ten minutes later, a cloud cover moves in and stays there for five hours. Or else the reverse happens. In Cape Cod you need a weather forecast every minute."

Thus, location and the aesthetic design to be both derived from and imposed upon it were in constant discord, "something like trying to paint on water," Malmuth remarks. "It was just a contradiction in terms."

The only way to maintain any semblance of a schedule then, especially considering the all-important presence and development of the rain within the context of the story, was to provide daily, even hourly alternatives to what was planned. "The analogy I used for this schedule," Malmuth says, "was the card game of Hearts. The idea was to hold on to your suit in order to keep playing. Basically because we had the houses located across the bay from one another, we had eight suits: interior or exterior, day or night at either of the two. The body of water in between lent other possibilities.

"The most precious suit," he continues, "was (unencumbered) sunshine. Because there was only about 15% sunshine on the average per day, which I figured in my location scouting, you never wanted to run out of shots that required it. If you did, you would have nothing to shoot during that part of the day in which you would inevitably get some sunshine later on. So, if we were in the middle of shooting an interior, and the sun finally came out, and we knew we had to do more exteriors, it was better to stay inside, where we may have been simulating night with the windows boxed in, than go outside, knowing that later, each day, we would need a little of the sunshine to continue working. It got to be like a pyramid, a factorial. There just got to be these wild, crazy computations."

Thus, scheduling became a function of light rather than dramatic progression. "For example," Malmuth goes on, "we had to make sure that for the early part of the film, where there's a light drizzle, that we didn't shoot beyond 9:30 or 10:00 am on any given day. And then you want to make sure that, if say you're shooting that drizzle again on day 19, that the rain matches perfectly with the previous days. If it was real rain, even if it started to look like a match, you couldn't use it, because it might not be a match for long. Then, in order to keep working, you had to quickly find something else for that day, or, more specifically, for that time of day. The actors had to be poised and alert. We kept them updated with alternative scenes. The honey wagon became a virtual weather bureau, with production assistants constantly running in and out with new bulletins."

Often the cameras, the lights and the actors would be in position, the rain falling from the rain-making towers, when the wind would shift. "And then we couldn't shoot," Malmuth says, "because the wind would blow the rain in a direction where it was no longer lit properly, or at an angle where it wouldn't fall on the set. We may have prepared that set-up for hours, and then we'd have to scrap it and move on. All that earlier work would be of no value."

Then, as the production progressed into December, the temperature dropped, snow fell intermittently, the winds became more unpredictable. The excess spray of the rain-making equipment froze the cameras, undermined footing, and magnified already treacherous, extremely difficult working conditions.

Malmuth also had the benefit of a willing, dedicated production crew. "A good crew tunes you into things you haven't thought of," he says. "You have to be open to that. If you get good people, everyboidy is sparking everyone else. That's the way I was working with the actors. That's why I think the film is so alive. Nobody was saying, 'You can't do this or that.' I don't think that's the way a good movie is made."

Malmuth cites veteran cinematographer Larry Pizer (recently of *Grace Quigley, Time Rider* and *Three Sovereigns of Sarah,* the PBS miniseries) as contributing in a number of ways. "The first person you have to es-

Gothic residence of kidnapper Parrish (Frederick Forrest). **Opposite page –** ***Director Malmuth with Missy (Elizabeth Harnois) and Mikey (Harley Cross).***

Crew in rain gear with fire hose provide rain effect.* Below – *Malmuth and crew set up shot of "media invasion."

tablish communication with, at a real high level, almost a Zen level, is the cinematographer," Malmuth says, "because he's the custodian, the conduit of feeling for the director. And Larry was superb in this respect. He was also extremely helpful in offering advice on the scheduling, day by day, and suggesting that we portion out the sunshine over a progressive time frame. His previous experience was very valuable."

Malmuth also credits camera operator Constantine Makris with a quick grasp of what was required both technically and aesthetically. He acknowledges production designer Rob King with, among other ideas, providing the muted tones that work against the occasional but startling eruptions of piquant color. "To keep you off balance, to keep you alert to the hidden threat," says Malmuth. Assistant director Don Newman exhibited "unbelievable endurance." And to Edwina Follows, Malmuth's personal assistant: "she was my eyes and ears, my mirror. She kept me abreast of everything that was happening."

Where Are the Children?, produced by Zev Braun and released through Rastar, might be called a "human thriller," where a gentle but troubled woman experiences a *déja vu* of tragedy when her two children are abducted by a vengeful ex-husband. The film features Jill Clayburgh, Frederick Forrest, Max Gail, Harley Cross and Elizabeth Harnois. The story is fundamentally straightforward in the telling, the drama intimate, the environment circumscribed. But the application of the rain and the capriciousness of the weather made *Where Are the Children?* one of the most physically demanding, logistically harrowing productions in recent memory.

There were also days when Malmuth started working two production shifts. "I brought up a separate group to shoot with," he explains. "I'd leave my daytime crew at lunch and meet with the night crew to go over what shots I wanted and where to set up. Then when it got dark, I'd leave the daytime crew and go directly to the next location, where the other crew was getting ready. I was shooting daytime and night, both. I did that five or six times. I didn't sleep."

Still, the dramatic thrust of *Where Are the Children?*, however radically photographed out of sequence, was never lost or jeopardized. "No," says Malmuth, "because I storyboarded the film. I shot a video of the locations when I first got up there. I knew the script intimately. I walked through the film with the crew and rehearsed it with the actors, all of whom I personally selected. We had regular meetings. Every step of the way I knew what I was looking for."

The over-riding technical as well as aesthetic dimension of the film was the presence and escalation of the rain. "The rain was a way of bringing the viewer into the drama," Malmuth explains. "At first it's overcast, and you get a

sense of forboding, subconsciously, because the crisis is mounting. Then when the children are taken a drizzle begins, drops fall on one of the mittens that are left behind. The association between rain and the movement of the drama become fused at that point, and from there the two move forward together, with the storm corresponding with the deeper, growing trauma of the characters. The climax of the story would come at the height of the storm, with the full force of the elements working up the story into a crescendo. And along the way, as the characters were emotionally punished, your identification with them would be compounded by the unrelenting downpour of the rain. I wanted you to feel damp, and your bones to just ache with it. The rain would be a veritable character in the movie. It affects every single scene."

Three codes for rain were indicated in Malmuth's script. "On the first pages I made single lines," he says. "On page 27 I had double lines, and on page 48 I started doing triple lines." The storyboards were complemented by diagrams as well, "so we could work the widest camera position first, and then move in," Malmuth adds. "But we were always leapfrogging, dealing with the next setup ahead of us, dealing with the complications caused by the varities of rain, the respective intensities of the rain, the acceleration of the rain."

For the most part, it was the responsibility of Rob King and special effects co-ordinator Peter Chesney, of Image Engineering, Inc., in Burbank, to implement Malmuth's codes and diagrams.

"Bruce was very specific about the function of the rain as a visual metaphor throughout the film," Chesney comments, "that we were to carry the rain to interior as well as exterior scenes, that rain would dominate the film. It's so pervasive in the mood, the setting, what the characters were anticipating, that we were to bring the rain *inside*—on people's clothes, with condensation on pipes, with water wherever it might have a potential presence. Under that guidance, Rob (King) and I went through the script and concluded that *Where Are the Children?* had more rain effects to it than any other film ever shot. Not necessarily in terms of sheer volume, but in the number of scenes. It was what Bruce's script called for. It was in our script breakdowns. And based on that, Rob and I worked together in designing the hardware to go with the production."

Malmuth and Clayburgh confer before sequence involving search for children in the lake.

The hardware basically consisted of wind machines and rain towers, neither of which were practical to transport to Falmouth from Los Angeles or even New York. "We decided it was less expensive to build all of our own equipment with local materials and local fabricators," says Chesney, "than to rent it and ship it."

Gauging the dimensions of the most capacious shots in the storyboards, in conjunction with visits to the locations, it was determined that 12 rain towers were needed. These were designed by Chesney in Falmouth and fabricated by All Cape Welding. The towers were basically aluminum tripod devices that protracted from 15 to 25 feet with a hose running through the center to the apex, where a sprinkling nozzle releases the water via the pressure pulsing through it.

"You can rig the same tower with several different nozzles for a variety of effects," Chesney explains, "from light mists to slow drizzle to medium rain to heavy rain to masses of rain. But as well as flow, droplet size is also important."

The hoses that ran through the center section were connected to either fire trucks (provided by Bourne County of Massachusetts) or nearby hydrants, and were made of a cotton-nylon fabric 2½ to 3″ in radius. One each tower (or rain "giraffe," as they were often called and resembled), the hoses culminated in a manifold which branched the main lines to smaller lines that reached the nozzle.

The "throw," or area covered by water from the towers, depended on a combination of

Malmuth and assistant Edwina Follows check storyboards.

water pressure and wind power. "In a dead calm, which is one of the worst conditions for rain effects," Chesney says, "you get a 50 foot throw if you were in a high output mode. If you found yourself with a nice breeze, you get 100 to 150 feet of throw. But even then, you had to be allowed an upwind position to favor the camera's position."

The wind, of course, especially at that time of year in Cape Cod, was extremely difficult to control and impossible to predict. To help counter that, Chesney also had two wind machines fabricated for the production.

"The wind machines were designed as a back-up," he says, "to keep you shooting if you had absolutely still conditions or unfavorable tower placement."

The first wind machine was powered by a 60 hp Volkswagen engine with a 60 inch propellor that was custom built to work specifically with the RPM characteristic of such an engine. "That one would throw a concentrated breeze of about 50 miles per hour," Chesney says.

The second wind machine was a 3hp, 350 pound engine with a 48 inch blade that was electrically charged. "We got about 20 to 25 miles of breeze from that one," Chesney adds. "Either way, you just fired your fan up into the air to help blow the rain out into the scene."

The wind machines were also used to propel leaves in the background of certain scenes. "We did that quite a bit," says director Malmuth. "After two days of production a big storm came and took almost all the leaves away. At Rob King's prompting, we went out and collected several hundred bags of leaves, all the leaves we could find. One of the assistants would drop handfuls of leaves in front of the fan and (the leaves) would wort of whisk in, a few at a time, which added to the rain effect to help give you that gloomy, depressing feeling of autumn."

In addition to the towers, two other rain-making instruments were used. First were the rain wands, hand-held rods with smaller nozzles on the end attached by a clip valve. "There were several of these," Chesney says. "They were used anytime you wanted a small amount of rain in a specific area, and where there was no room for towers or heavy equipment. One person could hold the wand while sitting on a step ladder, or two or three people could do it. The wands were effective against windows, in front of the camera, or on actors for close-ups."

The other devices, equally valuable, were the water cannons. "All fire departments have these," Chesney says. "They have what's called a fog nozzle on them, a large-scale version of what's on a garden hose. You can twist it into a wide pattern or into a straight stream."

For major scenes on *Where Are the Children?*, which required coverage of up to 150 to 300 square yards, combinations of towers, the cannons, and even regular fire hoses were used. "On those scenes," Chesney continues, "especially toward the end where the rain is heaviest, we were probably using the full output mode of a normal sized fire truck. Everybody had a hose or some instrument in their hands. For the handlines there was somewhere between 100 and 150 pounds of psi (pressure per square inch). It took two people to hold it. Those guys were backed up by our tripod-mounted water cannons, which we could push to 250 psi operating off two, three inch lines. Then, all of the towers were going. So we're talking about hundreds of gallons of water a minute. We estimated that about 2 million gallons of water were used on the production."

Beyond providing for an appropriate fall for each given scene, the cinematic illusion of rain is optimized by proper lighting.

At times, for the wider outdoor shots, a total of 6 HMIs, varying in power from 2500 to 4000 watts, were operating simultaneously. "About three of those HMIs were working constantly as backlighting for the rain," says cinematographer Larry Pizer.

"Sometimes there would be an additional two or three to create lightning, which was a way of accenting dramatic moments in the film. These were HMIs with shutters on them, something like Venetian blinds, in principle, only faster. Then there were a few 9-lights cast through diffusion paper, just for ambience."

Rain also provided ambience for interior scenes, especially on windows or the cumulation of humidity on walls or objects in dank spaces. "In our bag of tricks," Chesney remarks, "there are miniature manifolds and all sort of lines for running small little drips of water through the houses that you could regulate in order to complement the mood of the scene," These "drips" would then have a correlation on the sound track, and were respectively based on plus or minus human heartbeats.

Finding a way to position the equipment beyond the view of the camera was also very complicated at times. "We were climbing trees, climbing cliffs, climbing roofs," Malmuth adds. "We had a lot of actual mountain climbing equipment on the set. It took that kind of agility to get the rain-making gear where you wanted it." Particularly tricky was using the mountain climbing equipment to install a portable rain tower section 40 feet up in a tree veneered with ice. "That was not an atypical situation," Malmuth says.

Also important was protecting the camera lens from residual moisture. "Under windy conditions, especially if we were working directly into the wind," says Pizer, "the rain would blow horizontally and you would have to use one of the Panavision rain deflectors."

Originally developed during World War II for naval applications, the rain deflector is a disc of spinning glass that attaches directly to the matte box in front of the lens. "It's a piece of glass that spins so fast that the water will not stay on it, and the spinning will not register on film," Pizer continues. "You just turn the motor on, and it takes a few seconds to get up to speed. It sounds like a very faint siren in a way. But then you can point the camera straight up into the air, let the rain come down on it, and none of it will reach the lens or be recorded on film. It's really an extraordinary piece of equipment."

Pizer was also highly enamored of the durability of the Panavision cameras and accessories. "Everything worked excellently," he says. "I think a lot of people have the impression that, in addition to being top of the line equipment, Panavision is also very delicate, and that maybe Panavision is not right for this kind of difficult, very aggressive shoot. But that's not the case. In fact, I would like to pay Panavision a real tribute. My assistant and the operators maintained the equipment very well, of course, but we were under water week after week after week. And not only did the equipment perform well, we never had a minute of trouble with it.

"Except one night, when everything froze—just everything and everybody."

The climax of *Where Are the Children?* takes place on a "widow's walk," a narrow platform some three feet across that runs the length of the roof of the residence occupied by Parrish and where the children have been held. Earlier Parrish had used the walk to survey the family across the inlet. Now he is pursued by Nancy as both vie desparately for the children, some 35 feet above ground.

The Cape Code weather at this time reached a new nadir. The wind blew with a force of 30 to 40 mph. Snow fell. The temperature dropped to 14 degrees, excluding the wind chill factor. The downpour of rain would be at its most extreme. The scene took five days to shoot, all of them nights.

"Those last weeks were pretty grim," Malmuth says. "People did not like going to work. You could hear the shuffle of their

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heavy rain gear as they came on to the set and started to get ready. Everybody was soaked and frozen every day."

To fully establish the perilous geography of the scene, three sections of scaffolding culminating at 18 feet were erected to broadside the house and the widow's walk. "With the tripod, it was about 24 feet up," Pizer says, "with a view slightly upward." Virtually the entire scene was shot twice from this perspective with a Panavision Gold, the principal camera throughout *Where Are the Children?*

On ensuing nights, a Panaflex X with a 29mm prime was used for intimate, handheld shots on the walk itself. (Operator Constantine Makris estimates that almost 30% of the film, especially enhancing the cumulative drama and energy in the concluding minutes, was hand held.)

The sound equipment, electronic rather than mechanical, was particularly vulnerable. "It was the most difficult production I'd ever done," comments 16 year veteran sound recordist Carey Lindley. "It was just hustling and staying right at the edge of (camera) frame, not caring about the weather and fighting all the time. By the time we'd get done with one of the harder shots, we'd have an inch of ice built up around our microphones."

Conditions made it impossible to use any more than one recorder, but there were often eight to ten inputs to a given take, with a combination of remote mics and a fish pole. "Each mic had to be properly shock mounted," Lindley says. "You have a foam rubber windscreen that goes around it. Then a zeppelin, which is a large encasing that goes over the foam. Then a nylon sock for another layer of protection. Then you wrap all of that with an inch of acoustical foam. The mics could still pick up the sound, because I'd leave the end as clean as possible and angle it down from overhead so most of the rain didn't get to the end of it."

Lindley gives special credit to his assistant, Andrew Kunin, who handled the fish pole on the widow's walk. "I had 200 feet of wire run up to him," Lindley says. "He did the scene with a Sennheiser 815."

Amazingly, almost all of the location sound was used in the final mix. "What you're trying to do," Lindley says, "is get as close to the dialogue as possible, because the rain will prevail, 360° around you. We had a great team of actors. They understood what we were fighting for and worked very hard to get it right."

Remarkably, *Where Are the Children?* went only three days over schedule, finishing in time to break for Christmas on December 23, 1984. Equally impressive, especially considering the massive challenges to the production, only 150,000 feet of film were exposed (Eastman Kodak 5247 for daylight; 5249 for night, none of it pushed), equalling out to a ratio of but 3 or 4:1. The average feature film uses at least 400,000 feet of film.

"The satisfying thing," Malmuth says, "is to see the answer print and have it work out the way it did. It's a thrilling thing. I can think of so many stages where, only on a wing and a prayer, could you go to the next stage. The doors are always seemingly closing in front of you, and you have to bang them open to get through. Then you think of all the people who helped out, who worked so hard and gave so much, to where you go, 'Gosh, here it is, a nice looking answer print.' It's everything I saw when I went out there with naked eyes. My first impressions have become lasting impressions." △

Ric Gentry is a regular contributor to American Cinematographer.

Lightflex Meets the Challenge

by Sherwood "Woody" Omens, ASC

***Old New York set for* Evergreen.**

Photos by Sol Negrin, ASC

Several things should be made clear from the beginning:

1) Lightflex may not necessarily be the right tool for every film or every director of photography.

2) If it *is* right for you, let this be discovered as you read the script and as you examine your own personal style and working habits.

3) The input of your producer and director also will have an effect on how you use it.

4) Today's color film stocks are masterpieces of science. What I am about to describe here is not intended to suggest that the films are deficient.

5) My point is to state that Lightflex is one of many lighting options which, when used with care, can give a cinematographer additional artistic control. Since so many exceptionally beautiful films have been made without Lightflex, it is clear that the choice to use it is as significant as the choice *not* to use it. It is ultimately an artistic judgment based on an emotional response to the script. Bear in mind that I regard Lightflex as an augmentation to lighting; think of it as another lighting instrument. I hope that my experiences photographing *Evergreen* will make this clearer.

For me the 1940's are a period of great nostalgia. These were my days as a youngster, who, without knowing at the time, was absorbing the scene. Cars, clothing, buildings, events and conversations of the day were making an impression. Just how much I was to remember about my childhood would not really be discovered until I was to come head on with something which would jog my memory. A few years ago, while watching a documentary about World War II, I recalled that at the age of seven I was going around the whole neighborhood asking for cans of cooking grease. All that slop I was hauling in my wagon was used in the manufacture of ammunition in the war effort. This was just a small recollection.

But, reading the script of *Evergreen* became a major stimulus for recalling those early years. This was strong involvement. I began remembering other things. There was talk of the war far away, but also talk of the war at home with air raid safety precautions. And there was food rationing with little red tokens for the weekly meat allowance. I was put back in time recalling facts and a whole lot more. I was stirring up feelings which, more than facts, shaped these images. What I was feeling about these earlier times

Omens and crew discuss dolly shot.* Below – *Lightflex mounted with a 5:1 zoom lens.

would need to be translated into photography which would help a film viewer lose himself in the film as I was lost in my private memories. It was clear that my technique had to alter the look of the images. Scenes of the past had to belong to, and stay in, their own place and time in history. They could not be allowed to jump into today.

Every D.P. has had to work at getting an "old look" at some time or other. The only question is how to do it well, and this means in an interesting style which does not look obvious and distracting. My particular problem with *Evergreen* was to meet the following requirements:

Warmth—but not brown and not coral to the degree that cool greens and blues are destroyed.

Softness—but not mushy, dreamy or vague.

Dark shadows—but with rich tonal detail and texture.

A Progression of Decreasing Warmth—1909–1918.

A Progression of Decreasing Softness—1928–1938.

A Progression of Decreasing Shadows—1946–1959.

These requirements were an outgrowth of my personal vision and the insight of director Fielder Cook. His guidelines reinforced my plan and gave me real confidence to fully exploit Lightflex. He wanted the images to have the qualities of an old, faded book, with the colors in a pastel range. His other adjectives, *ashes* and *crumbling,* gave me almost the aroma of what these images would be like.

I had an advantage going in. I had tested Lightflex with Cheryl Ladd for use in *Grace Kelly*. I had also done a test session with Gerry Turpin, BSC, the inventor of Lightflex. Fielder Cook had used Lightflex with Michel Hugo, ASC, on the TV version of the Frances Farmer story. He brought an enormous enthusiasm as well as confidence gained from Michel's sensitive use of Lightflex. Day by day it became clearer to us that this lighting instrument had the potential to make *Evergreen* really special.

I began testing in New York and after a week of trying to integrate my use of nets, sepia glass, and double fogs with the Lightflex, there was enough footage to show Fielder and the producers. From the screening we all saw the potential range that was possible. With just the right fine-tuning, we would be able to make subtle changes to handle the changing moods between 1909 and 1959. These tests were of the principal actors and their make-up, hairstyles, and wardrobe. Other tests were made to enhance exterior scenes. It is quite an art to know how much color tone to use from a glass filter as compared to what is generated by the Lightflex. But, let me stress that no amount of description here can do for you what one test can. The main point is that I was able to unify my previous techniques with the new technology. I will not pretend that the tests gave me a list of absolute answers. Every day of dailies taught me more and more how to refine technique.

Let me digress for a moment and say something about Rembrandt. He always gets a mention when painters and photographers get serious about lighting. There is a good reason. He achieved greatness in portrait paintings because he had the gift of capturing the inner spirit of the sitter and doing it with a special sensitivity toward lighting. He built solid dimensional roundness and physical body form by contrasting the highlights to the shadow areas. To make this contrast fully effective he used opaque white lead in the highlights to get maximum reflectivity off the surface, while he made the shadows open and transparent with many thin veils of varnish called glazes. You can see deep into these shadows all the way down to the bottom of the canvas. It's like looking through layers of stained glass. His shadow detail is rich and interesting because you can see into the many layers of glazing. The

incident light goes through the layers, hits the bottom surface and comes back with luminous warmth.

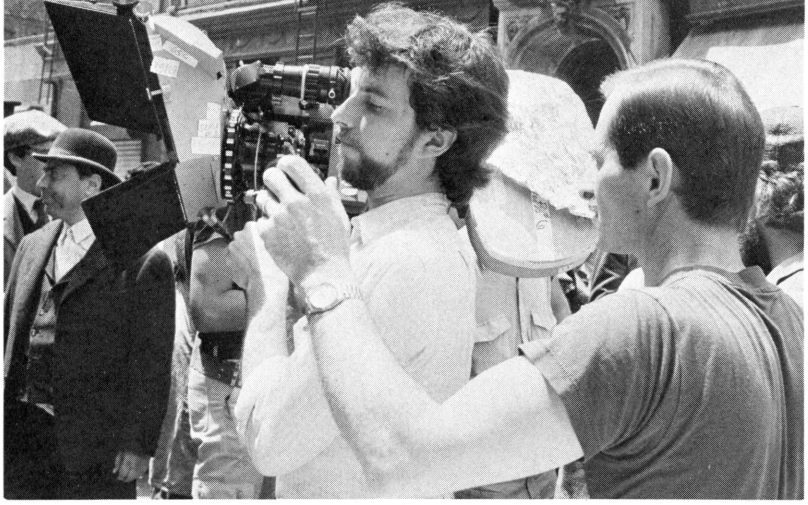
Cinematographers, of course, love the same dark, yet open, detailed shadows in their films. They get the results with a variety of techniques. What I discovered is that Lightflex is an augmentation to the kind of lighting I enjoy doing. In summary, it is just one more way to "get there." I like the look of opening up shadows this way. And I like the "glazing" effect which is achieved when a specific color like sepia is in the Lightflex filter tray. But, I "glazed" other cooler colors as well. The possibilities are fully open to any cinematograher's imagination. Finally, to complete this comparison with painting, working with Lightflex is, as John Alton, ASC, put it, "painting with light," because you can see what you are getting. The effect is visible on the ground glass. Whatever degree of strength you like is infinitely adjustable with a variac. Here is a summary of my observations:

1) LF works on shadows, not highlights. Areas in the scene which are in the range of 1.5 to 2.5 stops underexposed will come to life very nicely. Areas darker than this, will be most startling as far as the detail which can be revealed. Just how much detail you will continue to pull out will depend on the brightness values of objects in those shadows. This estimate is approximate. Your tests and your taste in lighting will determine what is really possible.

2) LF, if over-used, will make these areas go milky gray. Remember, if objects in the shadows are too dark, there will be nothing for LF to bring to life. You need what I call "live shadows."

3) With practice you can begin to judge, by eye, on the ground glass just what effect produces a given screen result.

4) LF will save you the use of fill light units if the shadow areas are not too dark. The number of fill units or additional lighting you will save could be just one in a simple two shot or an undetermined number in a sports arena or vast forest. In these big shot instances trying to "pick up" the shadows might be impossible any other way. But, you will get milky results if the LF is used on dead shadows.

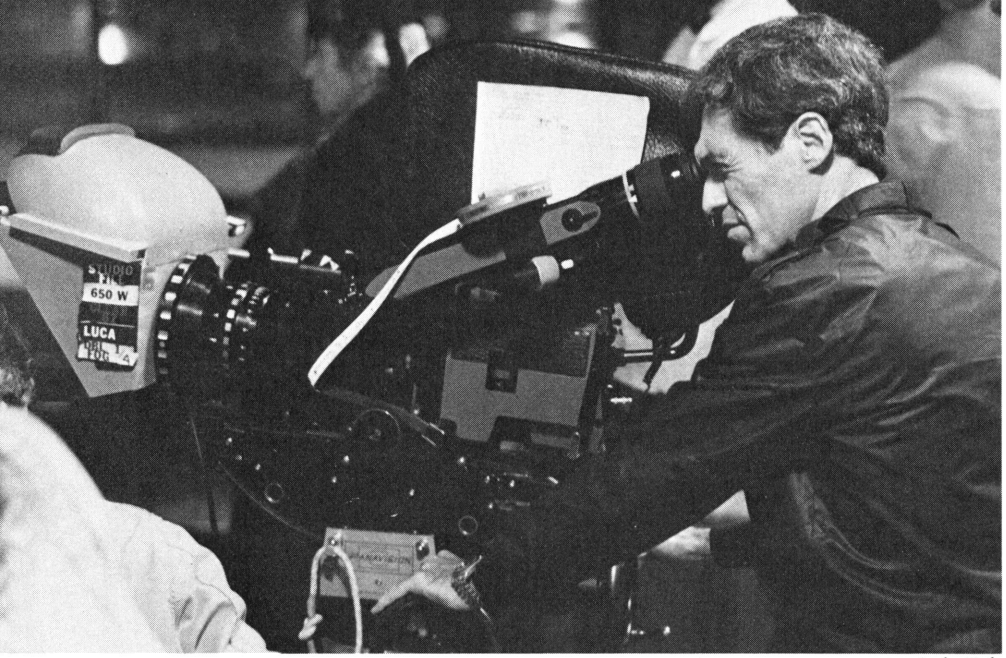


Michael Negrin and Maurice Brown use Lightflex on a hand held shot.
Center – *Dolly shot rehearsal with Leslie Ann Warren far left.*
Below – Omens and Bob Crone use Lightflex with the Panaglide for interior shot.

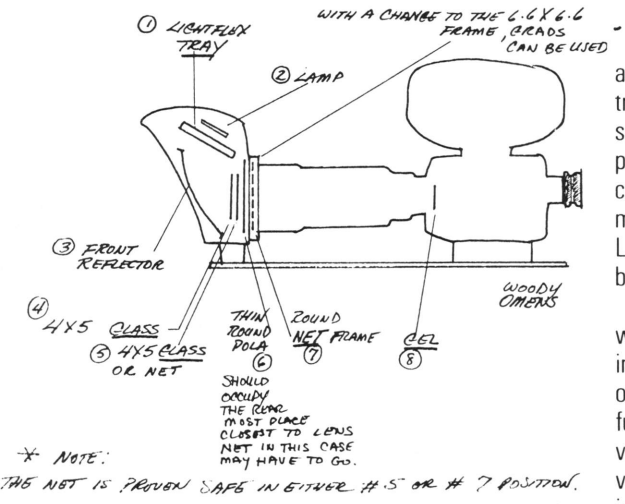
5) While LF is a lighting instrument, it is not a substitute where modeling, highlighting, or texturing is needed in the traditional way. There is no substitute for the well positioned lamp or reflector. But LF is the first fill light I have ever used in a close-up, which is undetectable in the eyes of an actor. There is no highlight to give it away.

6) Where can you find a lighting method to help you with contrast problems and at the same time avoid the complex side effects of working with low contrast filters or fog filters?

7) If you like the results of pre or post flashing, now you can do it in the camera to any degree and see the



Lucinda Zak



Note "menu board" showing filter and Lightflex data. See diagram.

results. The result can be neutral or color toned.

8) The dailies were more consistent because the LF effect seemed to mask any variability in film or processing. At Medallion Lab in Canada, where most of the dailies were processed, Chris Hinton was very pleased. We went for a period of four weeks using the same printer lights.

9) Results were better with both the standard release print stock and with the low contrast print stock 5380. The beautiful 5380 answer print made by Bill Bickford and Paul O'Driscoll at United Color Lab made the transfer at NBC work like a charm. Ed Ancona of NBC was pleased with the combination of LF and the 5380 print stock. And, I might add, the opticals looked better.

10) Bill Bickford told me that the reduction print from 35mm to 16mm was outstanding.

11) It is quite satisfying when a cinematographer can put certain controls in his hands at the very moment of shooting. The hands on, "painting," aspect of LF feels good. Shadow control, contrast control, and color control are mine if I want them or I can turn off the LF and simply use the unit as a matte box.

A color I especially liked was what I called "follow flex." In the opening scene of *Evergreen*, Anna comes out of a dark subway, up the stairs, into full daylight. For this shot we rode the variac so as to change the LF lamp voltage to hold the effect constant at T3 in the subway and also at T11 in daylight. In a dolly or pan, "follow flexing" may have to be done even if the stop does not change. An example I found was in a shot where the camera followed an actor from a bright room to a dim hallway and out again into another bright room. The stop remained T3 all the way but the LF effect was too much for the hallway portion. At this point in the move the LF intensity had to be reduced. Failure to reduce intensity would have produced a milky overload in just the hallway portion. The control of coloring either the shadows or the highlights or both is possible. The sequences in 1909 on the streets of old New York were "glazed" with a sepia glass filter on the lens as one would do ordinarily. This gave color to the high and mid values. Then, at the same time, the sepia gel in front of the LF lamp gave color to the lower values and to the shadows.

12) The whole thing of using LF is, to be sure, a "heads up" game. That is to say, the DP and assistants have to develop a few new routine habits. Even with talented assistants like Maurice Brown in New York and Thom Ryan in Canada, I kept a menu board on the side of the LF. We all knew what was going on inside and outside of the unit. In a softly lit scene of low contrast, LF could flatten things out. You will have to evaluate scene contrast, lighting ratios, and filtration to know just how little effect to use.

Also, at the end of the day as your eyes get tired, you might have a tendency to overuse the effect. To offset this, Arriflex is now suggesting a spot metering method to make the setting of LF more of an objective process. As yet, I have not tried it. But, here as with all that I have described, there is room for any cinematographer's methods to fit in.

Marty Conn, formerly of Lightflex America, Inc., was enormously helpful and patient in answering all my long distance calls during the testing period in New York. He is a master when it comes to knowing the subtle applications of Lightflex in solving "real world" problems. Director of photography Michel Hugo ASC was very generous in sharing what he learned using LF on *Will There Really Be A Morning?* My thanks to Sol Negrin ASC for the lovely stills of the old New York streets, and my thanks also to Lucinda Zak for her fine black and white stills. △

(Editor's Note: Historically, it is not uncommon for two or more persons, remotely situated and with no communication to one another, to independently conceive an idea and develop it as a solution to a universal problem.

Shortly after World War II, the late Joseph B. Walker, ASC, invented a camera attachment for uniformly brightening or increasing the illumination of a photographic image upon the film during exposure within the camera. Mr. Walker filed an application for a patent on May 15, 1948. The U.S. Patent Office granted Patent no. 2,556,307 on June 12, 1951.

Mr. Walker's device is essentially similar to the Lightflex device subsequently invested in Great Britain by Gerry Turpin, BSC.)

Hollywood Beat, a Nice Try

by George Turner

Dick Rawlings Jr. grew up in the heady, frantic world of movie and television production. His father, Richard L. Rawlings, ASC, is a veteran cinematographer who worked on innumerable Warner Brothers pictures and was among the first to bring feature quality cinematography to television. The younger Rawlings began his career holding the camera slate for Ted Voigtlander, ASC, on "The Wild, Wild West" and for William Spencer, ASC, on "Gunsmoke."

For a while father and son alternated weekly as directors of photography on "Charlie's Angels," thus creating a source of confusion for those rare folk who read credit titles.

More recently, Dick Jr. has contributed his skills to a series for Aaron Spelling Productions, "Hollywood Beat." Comedy, action and tragedy are emphasized about equally in this unusual detective series. It's main suit, however, is atmosphere – the unique ambience of Hollywood streets and byways by day and night. The husky, redheaded cinematographer, usually seen perched high above the street atop a Titan crane or riding along the sidewalk on a dolly, has become a familiar figure to sightseers who visit the traditional movie capitol.

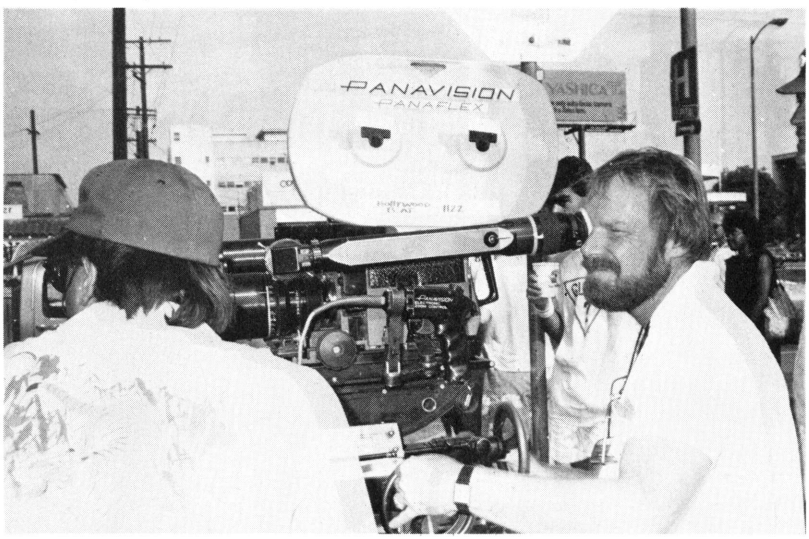
Television series production sets a swift and grueling pace reminiscent of the "Poverty Row" days of the thirties. Cinematographers in this field must be able to make quick but sound judgments.

"It takes us seven-and-a-half days to shoot an episode with an average of 55 to 67 pages of script," Rawlings said recently between takes. He was on location at the Tail of the Pup, a well-known luncheon spot constructed in the shape of a gigantic hot dog. "Our usual schedule for an hour-long episode is five days outside and two days in." *Outside* means streets and alleys, mostly at night. *In* is Stage 7 at Warner Hollywood Studio. "Sometimes it's six days out and one day in. It's a very difficult schedule to meet and we hope to pick up an extra day on the schedule and make it easier for everybody.

"You used to be able to shoot an hour show in six days, but today's shows are structured differently. About every 10 years somebody comes up with a new idea: "Kung Fu," "Hill Street Blues," "Miami Vice." With each innovation they find something more difficult to shoot, so it takes more time than those earlier shows. The main difference is in how the script is constructed."

Rawlings summed up the tightness of TV scheduling by noting that there is little margin for error. "One mistake and we're out of luck!" he exclaimed. "One wardrobe goof, one actor out sick, one film buckle, and we've had it."

The Titan crane and lighting equipment used in filming* Hollywood Beat *were seen almost daily and nightly on the streets of Hollywood for several months.



Dick Rawlings Jr. rides the crane during a rehearsal for a melee at the Tail of the Pup, a local landmark.
Below: ***Rawlings lines up a shot in La Cienega Street.***

The almost non-stop location shooting requires a lot of moving around and setting up of equipment. A Titan crane is utilized often where space permits. There are many setups on rooftops and in narrow alleys which make great demands upon the ingenuity of the cameraman.

"Our main base is Hollywood Boulevard," Rawlings said. "The producers wanted that special *look* that you see on the boulevard, so we're always trying to get the flavor and feel of it.

"We work with color film, so we decided, 'Why not use the color that's there and make it jump out at you?' It lights the actors, creates the atmosphere. Those characters on the boulevard – not all of them are bums. Some of them have money or they couldn't dress up that way. We have a lot of fun down there and I think it's evident in our show. I wish we had more time to find more unusual places in the area. People used to build such interesting, strange things there."

Rawlings revealed that his photographic technique evolved from things he learned as a youth watching his father and other leading cinematographers.

"Dad was assistant cameraman for James Wong Howe at Warner Brothers during the Forties, and he had a lot of good to say about him. He was tough when on the set, very gentle off. Father got along with him fine and learned a lot from him about lighting black and white and carried it into color, with all the backlighting and other elements. I believe in that, using black and white hard lighting with color, especially with TV.

"In TV everything is transferred to tape. Soft, diffused light, bounce light and the like, doesn't transfer well to tape. That softness and beauty that looks so good on a big light reflected theater screen sort of turns to mud in the transfer to tape. So, I go for a hard light and make sure it's well exposed. I don't like to go to the full extent of the lens, pushing things too far. I prefer to leave a little bit of leeway for the lab to work with. Usually, I shoot anyplace from f2.8 to f3.5 on the boulevard at 600 ASA."

Rawlings expressed his preference for prime lenses over zooms for the night shots that make up a large proportion of the shows.

"We use Zeiss lenses in Panavision lens mounts. Combining these with Kodak 5294 creates a thing of beauty. That's part of how we get the good look of the show. With a zoom lens you lose quality no matter how good the lens and never see the darks you want to see so desperately. With the Zeiss primes you can see things moving in the shadows and it really shows on television. At least 50% of the show is done with primes, and our company has spent a great deal of money assembling these lenses.

"When shooting at night I make sure we have sufficient available light, then balance to that. Our location light sources are neon, fluorescent, mercury vapor, sodium vapor, and mazda – all different colors all the way from red to blue. We use some kind of fill light to help the faces. If a face is, say, blue, we throw in some light to make it more normal. We try to light things so that the lab doesn't have to fight all the different Kelvin temperatures."

To assure the neon-dominated look that typifies the night scenes, a variety of neon signs were specially made to use on location.

"They had a few made up when they shot the pilot," Rawlings said. "When we started the series we needed more and I had them made. We carry 15 or 20 of these and place them in the backgrounds. There are a variety of colors: lavender, mint, turquoise, green, red, and so on. We have matching gels to put over our lights. We throw in a kicker to add a little extra color for style. We like to use a very 'sourcy' light."

Shooting daylight exteriors presents lighting problems of a different sort.

"Where possible I prefer to get a backlight or crosslight for the actors, then just use some fill for the faces," Rawlings noted. "I like arc light with the sun, but sometimes it isn't possible to use them and then I have to use 9-lights." (A 9-light unit is a cage with nine lights which Rawlings color corrects for daylight with blue filters.) "Sometimes we have to use a shower screen, tough frost or pearl, to diffuse the lights.

"Practical interiors are used when feasible. At Warner Hollywood we have sets of the police station and the bar where the characters hang out, and we set up whatever other interiors that can't be done on practical sets. We try for as natural a look as possible. We use russet bulbs for realistic indoor lighting. In the bar set, neon lights up the entire wall. We get nice effects from neon set in the proper places. Basically, however, our *look* is 'as natural as possible.' " △

(At press time "Hollywood Beat" had been cancelled, which does not diminish the fact that this was one of the most photographically impressive shows on television.)

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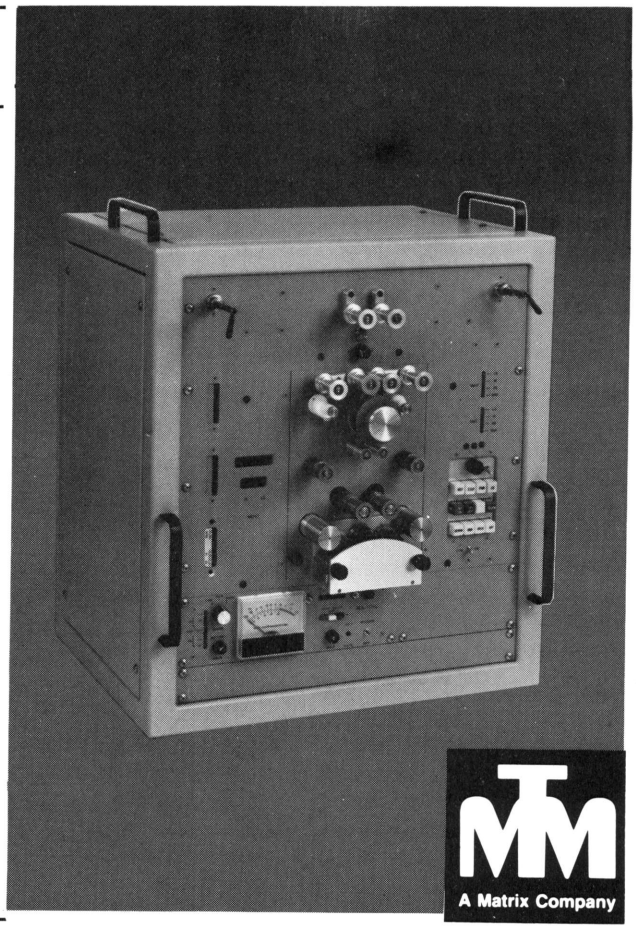

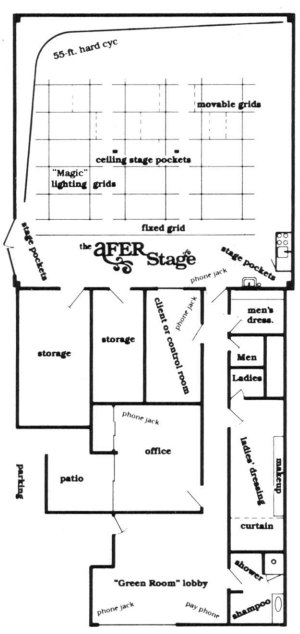

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Sting's Concert Film

by Skip Ferderber

When *Bring On The Night,* a concert film/documentary featuring rock star Sting opened in theaters last fall filmmakers had the rare opportunity to examine how a motion picture shot and edited on film used 30fps SMPTE time code throughout. Its use in post-production clearly demonstrates both the strengths and weaknesses of time code at its present stage of integration with traditional film production.

On the positive side was the allure of a speedy pin-point accurate system for locating and synchronizing picture and sound. But its strength ironically turns out to be its weakness: it was highly accurate to a point, but not as accurate as the old-fashioned manual method preferred by most film editors.

"The problem with 30fps time code is that it's not frame-accurate," said Robert Lambert, ACE, the film's veteran editor, noting that the 30fps standard is tied to video's 30fps and not to film's 24fps. And while Lambert and his crew devised systems and incorporated equipment that made good use of time code, he noted that it still requires some tinkering to get it up to the rigid standard required by top quality film editors.

The film itself records Sting's breaking in of a new band at a pair of concerts in Paris last May, and includes excerpts from those concerts, interviews and documentary footage. Directed by Michael Apted, produced by David Manson, with Ralph Bode, ASC, as director of photography, the film is both spontaneous slice-of-life glimpses and a planned event, reflecting the combined theatrical and documentary backgrounds of the production crew.

Time-coding the footage was originally incorporated into the production because the producers, A&M Films (the film division of A&M Records), vacillated between editing on tape or film. *Bring On The Night* was a natural for video editing: a film where the vast majority of its 250,000 feet of raw film was shot multi-camera.

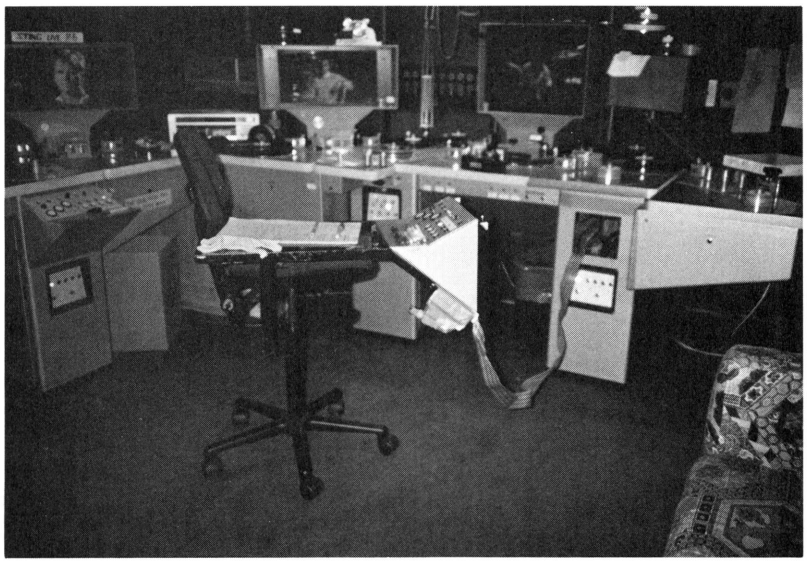
Lambert at his console.

But as Lambert pointed out late one afternoon in his editing room at A&M Records in Hollywood, the problem was how to move from video back to film, a necessity because the production is being released initially as a theatrical feature. Editing on tape was not unfamiliar to him. In addition to his broad background as a cameraman, second-unit director and film editor, he has directed and edited several music videos on tape and is knowledgeable about film-style video editing systems including the EditDroid and the Montage.

After he did some investigating, the necessity of conforming all that footage mistake-free and hassle-free, doing it in a short time and keeping it manageable all but ruled out editing on tape on this film. But since the film was slated with time code, Lambert had the opportunity to experiment with it in a pure film post-production environment and see for himself what were its advantages and disadvantages.

The first step was to cope with the copious amount of film shot by crews hailing from France, England, Germany, Italy and Switzerland. Lambert took over several rooms in the recording building at A&M Records for himself and up to 11 assistants. The main editing room was housed in a record editing suite which, although stripped of its recording gear, retained a full set of stereo speakers that Lambert hooked up to his editing gear. In this way Sting, Apted and others could get a feel for the film's musical values even during the initial editing.

The production broke down into roughly three editing categories: single-camera interviews or slice of life



which required no special handling; rehearsal footage, all shot with three cameras; and concert footage, each shot with either six or seven cameras. Sequences were first outlined by Lambert and Apted on file cards, with source cameras for each sequence identified by a color code. Color coding was also used for edge coding all footage.

To edit the voluminous amount of material in a relatively short time, Lambert had on hand a total of 10 KEM editing tables with 20 flicker-free picture heads. In the main editing suite, two KEM Universals and a KEM junior, all interlocked and equipped with time code readers, gave Lambert the ability to screen up to seven sets of footage at a time.

Syncing the rehearsal sequences was relatively easy. The footage was either time-coded, via a multi-camera time code reader system supplied to the production by Time Squad of Los Angeles, or was manually slated. Lambert then ran three filmstrips simultaneously synced to a common track through an eight-plate editing table, selected cuts, and turned the film over to assistants for a linear assembly.

Editing the concert segments required more exhaustive preparation. Two complete concerts were shot with six or occasionally seven cameras, then a complete recreation of the concert was shot to capture closeups from vantage points that were impossible with a live audience present. Several songs were even shot a fourth time. The results were that any given song/sequence could have roughly 24 different takes to choose from. To cope with this onslaught, Lambert and Apted would confer on a sequence, then Lambert would do a six or seven source edit of one of the four versions, then do the same for each of the others. After all four versions were edited, the edited versions themselves were screened together and the best cuts from each were selected for the final cut.

Lambert controlled each sequence in traditional film style: in/out points on the edge-coated film were marked by the editor with a grease pencil. Assistants cut the shots out, filling the missing gaps with leader and handing an edited roll back to Lambert.

In order to view up to seven different pictures simultaneously, Lambert used an interlock for the first time in his career. By pushing a single button on a control panel, all the selected takes would run in sync. Lambert noted he used to discount the concept as a needless luxury, especially for films shot single-camera style. But for this multi-camera film, Lambert acquired Cine-Sync K-2 editing machine interlocks manufactured by Denecke, Inc. of North Hollywood and installed them on all three editing tables so they could operate together as a single editing unit. "This picture couldn't have been done without them [the interlocks]," he declared flatly.

To operate the interlocked tables more efficiently, Lambert and engineer Craig Allen designed a control chair which enabled Lambert to control all three from a single panel yet gave him the mobility to view the screens from anywhere in the room. A control panel was removed from one editing table and attached to a roll-around chair, remaining linked to the table via a long ribbon connector. A small flat surface was added to serve as a writing surface for notes and a counterweight was added to keep the chair stable. Room lights could also be controlled from the chair.

While sequencing problems presented difficulties, they were still traditional film challenges. It was when Lambert tackled film/audio syncing, working with audio tracks transferred onto mag stripe in the normal film manner but time coded as well, that time code's usefulness in film-on-film editing became a problem.

Different syncing problems occurred in the rehearsal and concert sequences. For the rehearsals, held in a chateau outside Paris, film sequences were both time-coded and manually slated giving Lambert's assistants two ways of syncing sound and picture. A master track with both time code and manual slating was recorded on a 24-track analog recorder outside in a truck by a German crew, while a French crew recorded random sound on ¼-inch Nagra mono and stereo recorders synced only with a manual slate.

For concert footage, clap boards were impossible to use during filming, so all footage was numbered with time code shot by cameramen off TV monitors. There were several occasions, however, when cameramen did not initiate shots with time code, leaving the editors with unslated film.

With the majority of the film slated only by time code, frame-accurate syncing was virtually guaranteed to be impossible without manual manipulation—in other words, doing traditional film rock-'n-rolling to assure a perfect sync.

Time code showed its promise by allowing Lambert's crew to shuttle immediately through the mass of audio tape—31 hours' worth—to desired spots, but he soon discovered that shuttling at slow speeds, a requirement in film editing, threw most time code readers into a tizzy. "I would lock up my KEM and run it back to my time code reader and it'd be one, two, three frames off . . . which was a lesson for me. To our initial horror we found that time code readers read best at full

speed and not at slower speeds." Through Craig Allen's advice, Lambert again turned to a Denecke product, the DCODE TC-1 time code reader, which reads time code from 1/10th speed to 15 times speed in forward and reverse. Added Lambert, "One of the reasons we got into the DCODE reader is that it was much more accurate than any one we could come up with. I can go down to 3fps and it still reads."

Once sound and picture were locked up manually, time code was now frame-accurate; suddenly it was a positive feature for film editing. In the creation of the final audio track, a digital mixdown with 18 tracks was supplied to the Hollywood Warner sound stage for a final digital mix. The sound mixer received a time code-accurate audio track and a videocassette of the edited film to prepare the 18-track tape, making his job as easy as a time-coded video show.

Lambert's experiences with time code on the Sting film have convinced him to want to do more. On his next film, hopefully the restart of "The Two Jakes," he is thinking about either trying to edit on film or finding a refined time code system to use in conjunction with an all-film edit. But he is cautious about posting a film in video. "We work in frame-accurate sync," he said. "Not that video can't. But the cost of renting a video suite for an hour in order to accurately cut a film by two or three frames is expensive. If I want to stay at night and tell the director, 'Good night, go home,' and I want to stay here for an hour because it's my makeup, it doesn't cost me or the production anything and it makes a better film.

"This KEM costs [this production] by the month whether I use it for an hour a month or for every hour available. In my makeup it's got to make the best product possible. So if I think it's got to move two frames, I don't want to be hampered by a machine that's going—" and he made a tick-tick-tick sound, like a noisy clock.

If time code continues to be refined for film-on-film production, Lambert would be happy. He added, "Realistically, you have to be aware that time code is slightly off for film—but it's great to have it. I don't want to be without it again." △

Skip Ferderber is a Los Angeles freelance writer

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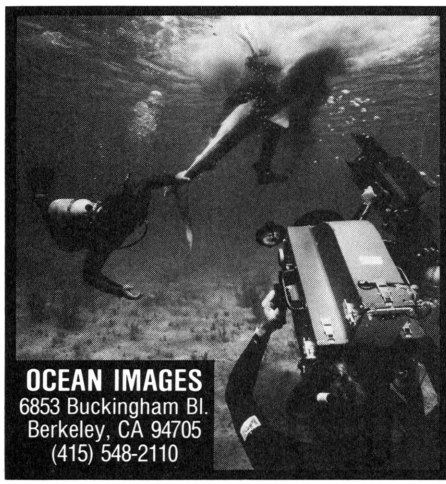

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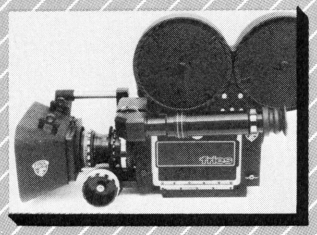
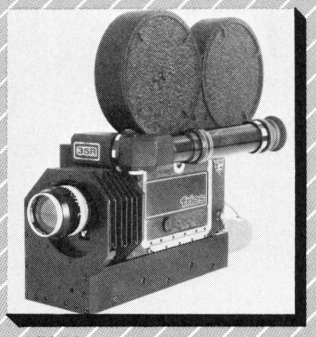
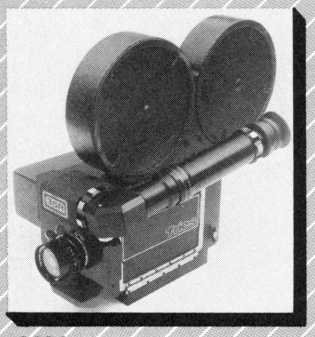


35R Beamsplitter reflex conversion to the Mitchell Std./ High Speed camera. Features include interchangeable lensmounts, film clip viewing, orientable viewfinder, video assist, high-speed/crystal/ single-frame motor.



AF35R Follow focus beamsplitter reflex conversion to the Mitchell Std./High Speed camera for computerized motion control. Features include 4" bellows focus travel, lead screw drive, internal capping shutter, choice of lensmounts, orientable viewfinder, film clip viewing, video assist, and high speed/ crystal/single frame motors.



35R3 Rotary mirror reflex conversion to the Mitchell Std./ High Speed camera. Features include interchangeable Arri, BNC-R and Nikon lensmounts, orientable viewfinder, video assist, and a high-speed/crystal motor.

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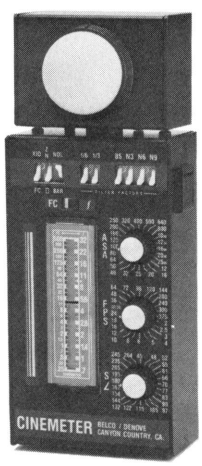

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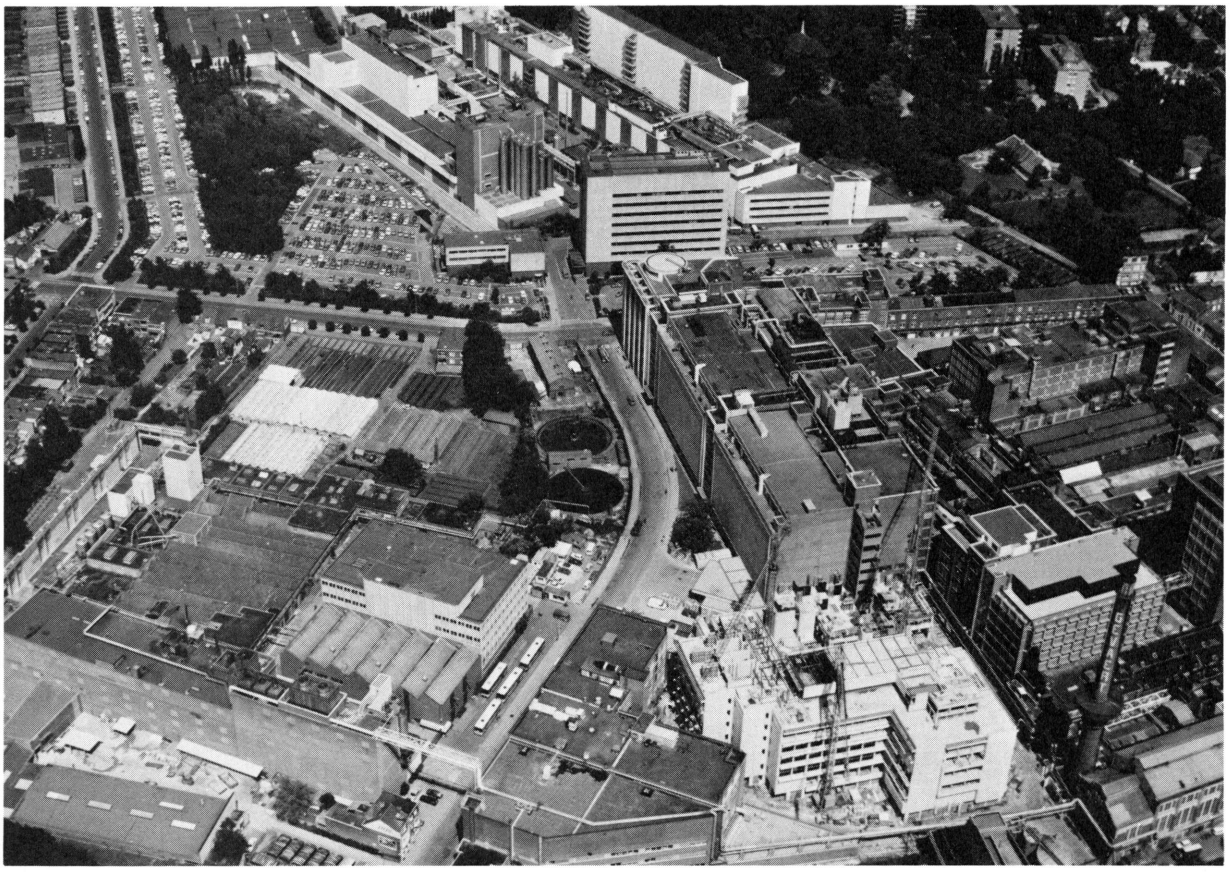
Diamond Anniversary for Agfa-Gevaert

by George Turner



An aerial view of some of the Belgian Agfa-Gevaert plants near Antwerp.

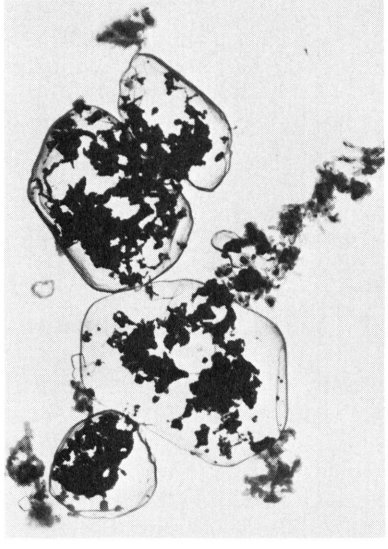
Cinematography was born about 90 years ago – its exact date depends upon which inventor we choose to honor. The manufacture of commercial film stocks for the infant industry followed quickly as various chemical manufacturers in Europe and the United States became interested. The earliest movie stocks were supplied by Eastman in the United States, the Lumiere brothers in France, Schering in Germany and Smith in Switzerland, all of which were in operation within two years after the first motion pictures were exhibited.

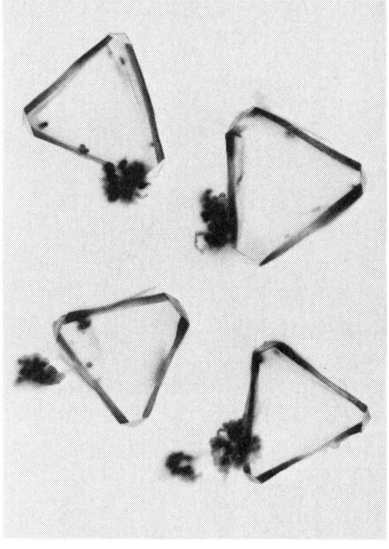
Both Agfa AG, which began operation in 1913 at Wolfen, Germany, and Gevaert Photo-Producted NV, which Lieven Gevaert founded in Belguim in 1890, entered the motion picture field in earnest in 1925. Both companies had been active for years in cinema films to a much lesser extent and played important roles in the development of film stocks. They were active competitors until 1964, when they merged to form Agfa-Gevaert NV. The responsibility for their motion picture and television products became centered in the plant at Mortsel, adjacent to Antwerp, Belguim.

Today, the Belgian factory covers more than 300 acres, resembling a small city in itself. The company is currently in the midst of a vast investment program and the launching of two new motion picture negative color films which are based upon a new silver halide crystal technology. The new films, XT320 and XT125, have been used on a number of pictures produced in various countries, including *Out of Africa* and *Gunbus,* both of which had David Watkin as lighting cameraman, and *The Mission,* with Robert DeNiro, which was photographed by Chris Menges.

The company invests 5.6% of its net sales receipts (about $130 million in 1984) on research. The two new films are the latest developments of this program. Manufacture continues of Gevacolor Print Film 982, and the Gevachrome Color Reversal film assortment which is widely used by television stations.

According to Gilbert Van Den Bogaert, head of the motion picture division, more than $230 million will be





One of the film coating control rooms. The entire process is computer controlled.

Below, ***These 10,000 X enlargements show silver grains of a conventional emulsion*** **(left)** ***and the XT emulsion*** **(right)** ***utilized in the new Agfa-Gevaert films.***

spent in new production equipment and improvements during the next two years. "Our faith in silver halide photography is illustrated by the fact that more than $25 million will go to an additional film coating machine, probably the largest and most modern in the world," Van Den Bogaert said. "Like the ones now in use, the new machine will require a building about 650 feet long and 130 feet high with a production capacity of between five and ten times that of conventional coating machines, depending upon which product line for which it is utilized."

Part of the program is devoted to polyester as a film base stronger and more durable than the standard triacetate. The first investment was in a facility to permit the recovery and recycling of polyester film. Another polyester plant was established for the production of polyester granulate, which is used in the manufacture of the Gevar film base now available in color print and sound negative stock.

The other main factories are located at Leverkusen and Munich, West Germany. Additional production centers are in Argentina, France, Spain, India and the United States, with subsidiary companies located in 25 countries.

The story of Agfa-Gevaert's 60 years in the movie industry began with the introduction of Gevaert's negative ortho cinema film, which was popular despite the growing ascendency of the more color-sensitive panchromatic films because it was about one-third faster. Their negative pan 23 film followed within a year, the number representing the Scheiner speed rating, which would be comparable to an ASA of about 12. With the burgeoning rise of the "talkies" in 1929, Gevaert introduced its sound negative ST 1.

At about the same time Agfa launched its TF 1 sound negative, followed quickly by Pankine E, a "fast" panchromatic film with a Scheiner rating of 21, and in 1931 the twice-as-fast Pankine F. Later the same year Agfa's improved Pankine G, which featured an anti-halation backing, quickly became the most popular production film in Germany. The multi-lingual versions of the famed science fiction film, *F. P. 1,* were among the many early German sound films shot on Pankine G.

Gevaert's negative pan special, memorable for its fine grain characteristics, was introduced in 1935, almost simultaneous with Agfa's Pankine H, which was twice as fast as G. Gevaert introduced its triacetate safety film base in 1937 as well its Panchromosa Microgran. Agfa countered with its popular Superpan and, in 1937, won an Academy Award in America for Agfa Supreme and Agfa Ultra Speed Pan negative films. Gevaert's Positive Fine Grain and Fine Grain Super Contrast and Agfa's Isopan were later widely used films. Today, despite the declining market for black and white movie stock, the Gevapan Reversal 880 remains a popular product.

Gevaert supplied Positif Color films during the silent picture era, which

were specially made for tinting and toning for color effects. Agfa entered the "natural color" field with a bi-pack process, DIPO, in 1931. Like the Technicolor of that time, DIPO consisted of one panchromatic and one orthochromatic black and white negative film which ran together, emulsion facing emulsion, through modified or specially built cameras. The two color separations thus exposed were each printed on one side of a double-sided positive film, which subsequently was dyed red-orange and blue-green. The great UFA studios in Germany marketed films made in this process as Ufacolor productions. In England it was known as Spectracolor and Chemicolor.

Agfa's Tripo print film and Gevaert's DIPO negatives were combined in the Gasparcolor process, a three-color process introduced in Germany in 1933 and also subsequently popular in England. The Agfacolor lenticular process was brought out in 1932, followed by Pantachrom and Opticolor. Agfacolor negative, which debuted in 1939, was a three color process which was continually improved upon for use in the German studios. The extraordinary fantasy, *Munchhausen* (1943) is one of many features made there before the fall of Germany in 1945.

The Russians seized a lot of Agfacolor stock and equipment as the war ended and soon introduced features in the "new Sovcolor" process. Agfa patents became the basis for postwar processes in Spain, Japan and the U.S. A number of major studio features – including *The Wild North, New Mexico, The Man on the Eiffel Tower* and *Escape From Fort Bravo* were made in Ansco Color, an American product utilizing licensed Agfa patents.

Gevaert's Gevacolor also came into its own after the war, becoming the most popular color stock in the European film industry, especially in France, West Germany, Italy and Sweden. Gevachrome Original High Speed negative, which was balanced for artificial light and introduced in 1968, became the progenitor of modern high-speed color films with its then-remarkable rating of ASA 125. A daylight film rated at ASA 160 followed.

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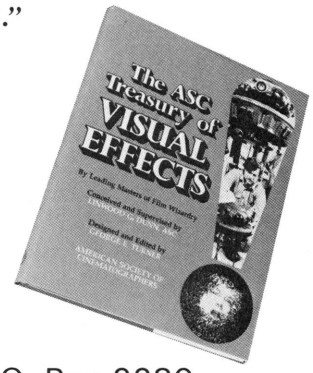

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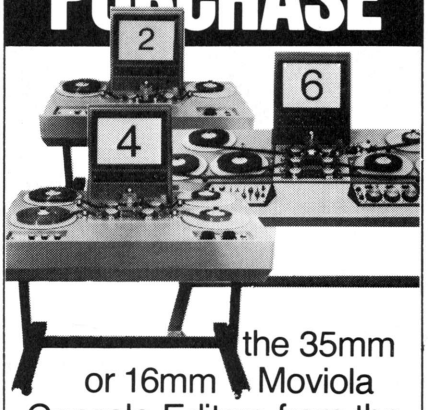

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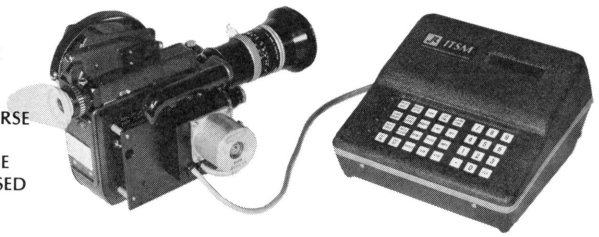

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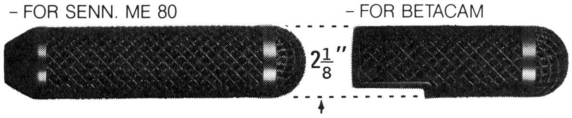

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200 which could be pushed to 1600. Later Gevachrome developments in the 80s culminated in the popular 702 and 722 camera films and Gevacolor II print film, now processed in more than 30 different countries.

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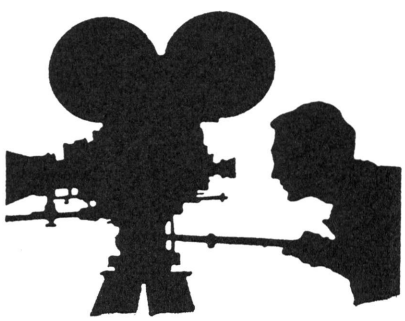

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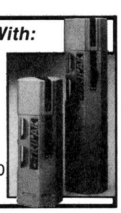

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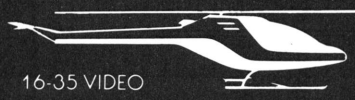

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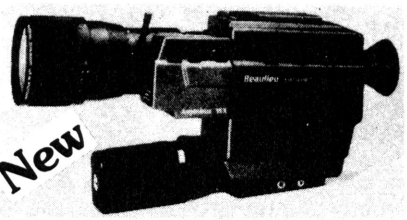

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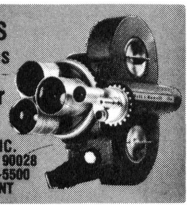

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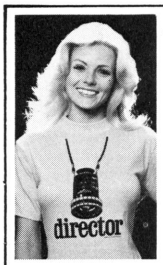

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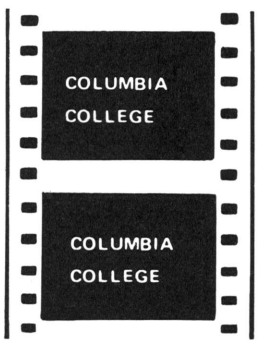

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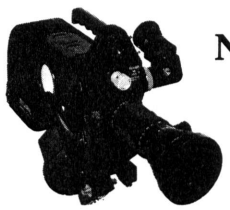

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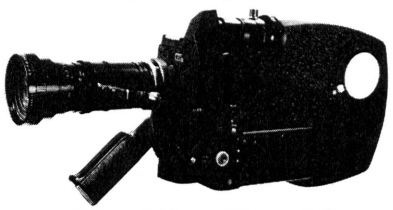

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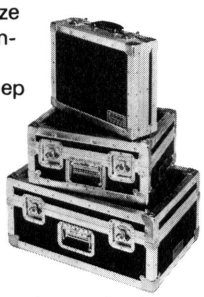

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In Memoriam

Henry Freulich, ASC, who started as a still photographer at Universal when he was 15 years old and became one of the busiest and most versatile directors of photography in the film industry, died in his sleep last December 3. He was 79 and had retired in 1969, but was active in the ASC as a member of the board of directors, chairman of the editorial advisory committee of *American* Cinematographer, and chairman of the health and welfare committee at the time of his death.

Born in New York City on April 14, 1906, Freulich moved to California in 1915 when his father, Jack Freulich, a portrait photographer with Underwood and Underwood, was offered a job as head of the still department at Universal Pictures by Carl Laemmle, president of the company. In 1921 Henry was given his first camera, a 4x5" Graflex, by his father. The following summer he was working as an office boy at Universal, which was then filming *The Hunchback of Notre Dame,* with Lon Chaney. "One night when they were shooting night scenes on the backlot, I went out with my Graflex and made 'stills in action,'" Freulich said. "My stills were shown to Carl Laemmle, who promoted me to Graflex still photographer on the *Hunchback* company. I continued at Universal as a regular still photographer and doubled as an assistant cameraman, as required of all stillmen at Universal."

In 1924, he worked as a stillman for Ted McCord, ASC, at First National, where he remained until 1929, when he moved to Columbia as an operative cameraman. He was also put in charge of the still department. "I got my training with top cameramen such as Joseph August, Ted Tetzlaff and Joseph Walker," he recalled recently. "My last picture as an operator was Frank Capra's *It Happened One Night,* with Joseph Walker." He became a director of photography in April, 1934, and at 27 was the youngest member of the ASC.

Freulich remained with Columbia for 31 years, during which he photographed (literally) hundreds of features, short subjects and television series. "Harry Cohn started me on the Three Stooges and other two-reel comedies because he said it would be good for me," Freulich said. He soon graduated to features such as *Stake Out, Air Hawks, One Way Ticket, Grand Exit, Hellship Morgan, Meet Nero Wolfe, Adventure in Manhattan,* and many of the studio's series features such as *Blondie, Boston Blackie,* and *The Lone Wolf.*

During World War II he served for four years in the Marine Corps as a chief combat cameraman with the 6th Division in the Pacific. The group was in the thick of battle during the Okinawa campaign and other major action. A letter of appreciation to Freulich from Commanding General Lemuel C. Shepherd, Jr., states that "Within a period of two months, your section of approximately 38 men suffered a total of 14 casualties, of which four were killed in action."

At war's end Freulich returned to Columbia, where his penchant for "mystery" lighting was utilized extensively in *Just Before Dawn, The Devil's Mask, The Unknown, Chinatown at Midnight* and many others. In 1960 he became a free-lance, working on a prodigious number of pictures for Universal and Columbia, many of them in Technicolor (*Return to Warbow, Masterson of Kansas,* etc.) He retired in 1969 and he and his wife, Adele, lived in Europe for nine years, studying painting in Florence and traveling. They returned to California eight years ago. △

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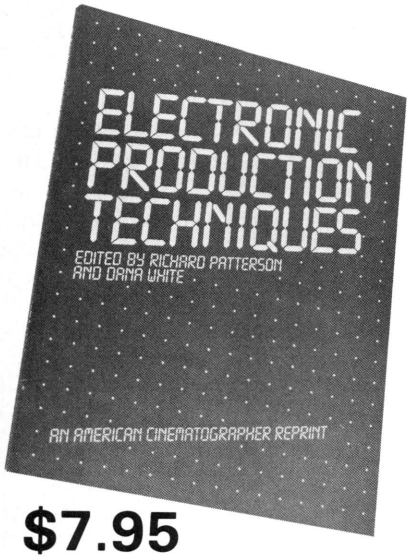

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From the Clubhouse

Vilmos Zsigmond and John Bailey delivered seminars in December at Una Citta in Cinema held at L'Aquila, Italy. Zsigmond's lectures were about cinema lighting and his demonstration was the lighting of a 16th Century cathedral in the Italian city. Bailey, recently acclaimed for his cinematography of *Silverado,* talked on the subject of photographing a Western.

The two were joined by Italian and French cinematographers who also covered various aspects of the art. They included Luciano Tovoli, Vittorio Storaro, and Henri Alekan.

• • •

James N. Henry, a laboratory color timer for Technicolor, is the newest associate member of the A.S.C. He has been with that company for 20 years.

Henry's career in the field of photography began with his experience in the U.S. Navy in 1942. He became a combat air photographer in the North Atlantic theater of action. After the war, he worked at Columbia Pictures as a black and white timer and subsequently joined Technicolor. As a sideline, Henry teaches underwater still photography, the techniques of which he first learned in the Navy.

• • •

A retrospective of the sound films of Academy Award-winning cinematographer Joseph Ruttenberg, ASC, whose films include *A Day At The Races, Philadelphia Story,* and *Gaslight* – began at the Staten Island Institute of Art on January 12. A master of lighting, Ruttenberg became a professional cinematographer in 1917; in 1935 he became a contract cameraman at MGM, and stayed at the studio until 1968. At MGM he was nominated for ten Oscars. Four times he won. Ruttenberg died in 1983.

The retrospective begins with *Fury,* a 1936 film directed by Fritz Lang. Oscar-nominated films in the series are *Waterloo Bridge, Dr. Jekyll and Mr. Hyde,* and *Gaslight.* Oscar-winning films are *Mrs. Miniver* and *Gigi.*

The Struggle, filmed in 1931 under the direction of D.W. Griffith, is the oldest film in the series. It was Griffith's last film, marked by experiments with location shooting and sound recording. Both *Side Street* and *The Struggle* were shot in New York City, on the streets, in marked contrast to the great majority of Ruttenberg's films, which usually were filmed on sound stages.

Each of the films in this series was selected to show how photography can deepen and enrich a narrative. In these movies lighting, focus, and camera movement are used not so much to record as to create, to transform what is before the lens.

The Institute's Museum is located five minute's walk west of the Staten Island Ferry Terminal at the corner of Wall and Stuyvesant Street. For more information call Robert Haller at (718) 727-1135.

Execution Revives Live Television

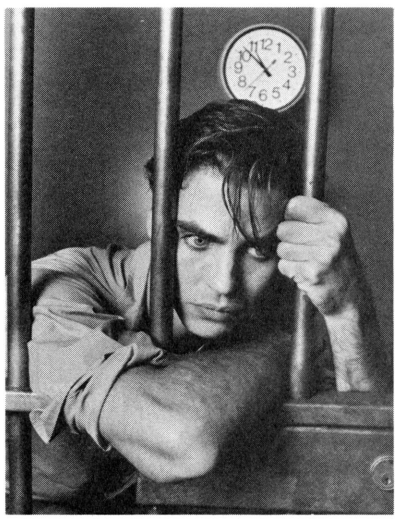
Television delivered one of its occasional surprises last November 17. On that evening, for the first time in about a quarter-century, ABC-TV presented an original, prime time, *live* TV drama. It was a two-hour show, *The Execution of Raymond Graham.*

To those of us who had grown up watching theatrical movies, the live dramas presented a curious mixture of pluses and minuses. Visually, they fell far short of film standards. Generalized lighting, sometimes ponderous camera moves, unavoidable gaffes that cried out for retakes, that pervading grayness that was a blight of TV transmission in those days – all these were bothersome to viewers accustomed to the expert photographic techniques customary in even the smaller theatrical films. The carefully lighted closeups so beloved of moviegoers were painfully absent. There were no post-production refinements. The sound likewise fell below Hollywood standards, with a scarcity of musical scoring and much unwanted noise.

And yet there were certain aspects of live TV drama that riveted the attention and commanded the respect of the viewer. Most critics overused the word *immediacy* and cited the similarity to watching in-person performances on a stage. However it is hard to get much immediacy from the fuzzy black and white images that were delivered to small, rounded screens of the period.

More probably it was the high quality of dialogue, direction and acting that made live shows memorable. With visual opulence out of the question, these aspects were emphasized. The acting *was* superior to most of what we were getting in the movies. The stage training, the rehearsals, the fact that the players were able to build their characterizations chronologically instead of in scattered takes, the emotional involvement that comes with good ensemble work – all of these things showed.

They show, too, in *The Execution of Raymond Graham.* TV equipment and techniques have improved immensely since the days of Playhouse 90, too. There isn't a clumsy moment in what must be the most precisely timed show ever attempted on TV. (We can use the present because, while the show was presented live in the Eastern United States from a studio in Toronto, it was taped for delayed broadcast on the West Coast.)



The play was written by Mel Frohman and directed by Daniel Petrie, a veteran of live drama whose last work in the medium was a memorable version of Joseph Conrad's *Victory* with Eric Portman and Richard Harris.

A dozen cameras covered *Execution,* which was televised in one long take (except for commercial breaks) after four weeks of rehearsals. About 17 minutes of the show was pre-recorded on tape, consisting of scenes shot inside a real prison, an auto, a phone booth and some houses. "We were all nervous about risking those night exteriors," Petrie explained during rehearsals. "If the weather is bad that night we'd be in some serious trouble."

The show deals with the question of whether capital punishment is justifiable. It takes place during the precise time frame of the program – a realistic touch that Orson Welles would have relished – and manages to stay right on the minute throughout. Most of it is a countdown to the time of execution by lethal injection of a 28-year-old man who had killed a 17-year-old boy during a robbery. After five years on death row, his last appeal has failed and he prepares for the end, hoping desperately for a last-minute miracle. It doesn't come and, with as much dignity as possible, he goes to his death, which is depicted graphically but without overt dramatization.

Live drama is certainly the actors' medium. There are memorable performances from Kate Reid as the killer's mother, George Dzundza as the prison chaplain, Lois Smith and Josef Sommer as the victim's parents, Morgan Freeman as the warden, Graham Beckel as the condemned man's brother and Laurie Metcalf as his sister, Linda Griffiths as the assistant to his attorney, Philip Sterling, and Alan Scarfe as an articulate but unfeeling governor.

Finest of all is Jeff Fahey as Raymond Graham. Fahey discussed the show with *American* Cinematographer, and the recounting of his preparations for the role lends dignity to the acting profession:

He went to Texas State Prison in Huntsville, where he talked to the men on death row. "They told me what they did, how they did it. They acknowledged that they had killed. Some of them you could be perfectly comfortable with. Others, you sense, would kill you in a minute if they weren't caged. I had them lock me in the cell of Charles Rumbaugh, who had just been executed the night before for killing a jeweler in Amarillo. They walked me to the death chamber and strapped me down to the bed he was executed on. I stayed strapped down for half an hour . . ."

Fahey's spellbinding performance is enhanced by some writing and directorial touches. For example, he is always seen through the prison bars, like a caged animal. "This was very deliberate," Fahey recalled. "They didn't want you to really see him as a complete man until he was taken out to die. Only then do you really see him – and then it's too late."

Maybe there's a future for the long-abandoned art of live TV drama after all. People with talent, something to say, and the guts to see it through are available, as this show demonstrates.

—G.T.

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